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ANNUAL REPORT
OF THE
Department of Public Works
OF THE
PROVINCE OF ALBERTA

1950-51

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON:
PRINTED BY A. SHNITKA, KING'S PRINTER FOR ALBERTA
1951

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Edmonton, September 7, 1951.

To His Honour,

J. J. BOWEN,

Lieutenant Governor of the Province of Alberta.

SIR,

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ended March 31, 1951.

Respectfully submitted,

D. B. MacMILLAN,

Minister of Public Works.

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GOVERNMENT OF THE PROVINCE OF ALBERTA
DEPARTMENT OF PUBLIC WORKS

REPORT
OF THE
DEPUTY MINISTER OF PUBLIC WORKS
For the Fiscal Year Ended March 31, 1951

HON. D. B. MACMILLAN,
Minister of Public Works.

Sir:

I have the honour to submit herewith the report covering the activities of the Department of Public Works for the fiscal year ended March 31, 1951.

HIGHWAYS, BRIDGES AND FERRIES

The mileage of Main Highways Maintenance during the year was 4,876. The sum of \$1,791,515.05 was expended for Main and Secondary Highways. The sum of \$3,710,427.06 was expended for construction and maintenance of District Highways and Local Roads.

There were 55 Ferries operated by the Province during the season with a total expenditure on Ferry Construction, Operation and Maintenance of \$228,612.00.

An extension program was carried out by the Main Highways Construction Branch, which included the grading of 531.69 miles, 48.42 miles were re-conditioned, 759.59 miles were gravel surfaced and 19.94 miles widened. A total of 253.09 miles of base course was placed during the season together with 235.36 miles of Hot Plant Mix Surface Course and 28.31 miles of Road Mix Surface Course. 14.29 miles of Bituminous Surface treatment were also done and 252.43 miles of centre line stripping were painted.

On the 24th day of April, 1950, an Agreement was formally entered into with the Government of Canada for the construction of the Trans-Canada Highway. Two contracts were awarded, one for grading and graveling from Strathmore to Gleichen Corner and the other for grade widening and asphaltic surfacing from Gleichen Corner to Bassano. 10.71 miles were completed on the first mentioned project and 2.79 miles of grade were widened on the second. This work is included in the above totals.

The work of the Bridge Branch included erection of steel and timber bridges and culverts on Main Highways. Twelve steel bridges, 30 timber bridges and 6 Reinforced Concrete bridges were constructed during the year and 309 Steel Bridges, 19 Precast and Reinforced

Concrete bridges and 409 timber bridges were repaired making a total of 785 bridges dealt with during the year.

The total sum expended under Post War Reconstruction was \$312,449.33. This included an amount of \$6,799.60 on the Grimshaw Highway. The gross expenditure made by the Provincial Government on this Highway from commencement of operation November 3rd, 1945, to March 31st, 1951, was \$2,857,944.00 of which sum the Dominion Government repaid their share viz. \$1,375,000.00.

The expenditures on Stream Control were \$285.70; Aircraft, \$4,354.38; Addition to Beaver House, Edmonton, \$255,131.57; Liquor Store (West End) Edmonton, \$9,174.71; Swimming Pool, Hanna, \$7,000.00; Swimming Pool, Macleod, \$7,000.00; Provincial Parks, \$14,703.37 and Town Planning, \$8,000.00.

SURVEYS

The report of the Director of Surveys shows an increase in the number of surveys carried forward to the ensuing year.

TOWN AND RURAL PLANNING ADVISORY BOARD

The Town Planning Act R.S.A. 1942, is administered by the above Board and the activities are covered by the report of the Director of Town Planning.

BUILDINGS

All public buildings and institutions were repaired and maintained in order to keep them up to standard requirements.

Details of maintenance, alterations, additions and construction of buildings are contained in the report of the Superintendent of Buildings.

MECHANICAL BRANCH

The Boilers, Factories and Electrical Protection Acts as well as operation of provincially owned power plants are under the jurisdiction of the above Branch, and those activities are covered by the report of the Mechanical Superintendent.

HIGHWAY TRAFFIC BOARD

The Public Service Vehicles Act R.S.A. 1942, is administered by the above Board. An increase in number of licenses issued and in mileage covered by public service vehicles over the mileage of the previous fiscal year is reported.

Respectfully submitted,

G. H. N. MONKMAN,
Deputy Minister.

**MAIN HIGHWAYS MAINTENANCE,
DISTRICT HIGHWAYS AND LOCAL ROADS,
FERRIES OPERATION, MAINTENANCE,
REPLACEMENTS AND INSTALLATIONS**
(J. H. JOHNSTON, *Chief Maintenance Engineer*)

The maintenance of Main and Secondary Highways, Construction and Maintenance of District Highways and Local Roads in Improvement Districts, Construction, Maintenance and Operation of Ferries and Construction of Roads in Municipal Districts, where assistance was given in the way of grants, were carried out under the supervision of ten District Engineers.

Detailed information covering expenditures for the fiscal year 1950-51 is contained in the following statements as submitted with this report:

1. Statement showing expenditure on maintenance of main and secondary highways. The total mileage in these classes of highways is 4,876 miles and the maintenance costs amounted to \$1,791,515.05, divided as follows:

| | |
|----------------------------|----------------|
| Ordinary maintenance | \$1,503,990.76 |
| Snow removal | 287,524.29 |

2. Statement showing the distribution from Income Account, of expenditure on the construction and maintenance of district highways and local roads in Improvement Districts, Municipal Districts and Special Areas, total of which amounted to \$3,710,427.06 divided as follows:

| | |
|-----------------------------|----------------|
| Improvement Districts | \$1,379,769.87 |
| Municipal Districts | 2,260,657.19 |
| Special Areas | 70,000.00 |

3. Statement showing in detail the expenditure made in connection with the operation, maintenance, reconstruction and installation of ferries from both capital and income accounts. There were 55 ferries operated in the Province during the season, with a total expenditure of \$228,612.00 divided as follows:

| | |
|----------------------------------|--------------|
| Operation and Replacements | \$188,374.35 |
| Installations | 40,237.67 |

NOTE: The costs of maintenance and secondary highways were generally normal throughout the Province but were increased as a result of additional mileage, which amounted to 271 miles over the previous year. Snow removal conditions in the winter 1950-51 were normal in the Northern part of the Province, but quite severe in the Southern part, up to March 1st, 1951. During March, however, snow conditions throughout the Province were the worst experienced in a number of years.

**MAIN HIGHWAYS MAINTENANCE
EXPENDITURE FOR MAINTENANCE OF MAIN AND SECONDARY HIGHWAYS
FOR THE YEAR ENDING MARCH 31, 1951**

| Location | Miles | Amount |
|-----------------------------------|-------|--------------|
| Walsh to Bassano | 136 | \$ 67,864.72 |
| Medicine Hat to Grassy Lake | 49 | 7,756.82 |
| Irvine to Wild Horse | 71 | 18,630.01 |
| Carway to Nanton | 104 | 28,415.75 |
| Grassy Lake to Crows Nest | 150 | 69,657.89 |
| Lethbridge to Coutts | 63 | 12,998.51 |

| Location | Miles | Amount |
|--|-------|----------------|
| Lethbridge to Waterton | 70 | 36,826.46 |
| Pincher to Waterton | 31 | 15,267.18 |
| Monarch to Carmangay | 25 | 8,970.81 |
| Lethbridge to Turin | 35 | 13,350.12 |
| Cardston to Immigrant Gap | 15 | 248.30 |
| Bassano to Banff | 152 | 58,352.92 |
| Nanton to 3 miles South of Didsbury | 91 | 82,332.18 |
| Okotoks to Longview | 24 | 14,302.29 |
| Calgary to Bowmen Park | 5 | 1,493.88 |
| Inverlake to Southeast 16-28-21-4 | 56 | 29,517.52 |
| S.E. 16-28-21-4 to Aisask | 147 | 62,466.87 |
| Drumheller to Wayne | 8 | 2,625.76 |
| Beiseker to 1 mile South of Twining | 25 | 7,353.40 |
| Midnapore to Black Diamond | 31 | 12,968.98 |
| Carmangay to High River | 64 | 17,487.46 |
| Vulcan Corner to Cheadle | 44 | 11,796.87 |
| Carbon West and South | 17 | 2,788.95 |
| Edmonton to Wetaskiwin | 36 | 23,201.64 |
| Wetaskiwin to Hayter | 165 | 60,889.19 |
| Edmonton to Marsden Corner | 171 | 60,107.15 |
| Fort Saskatchewan Bridge to Junction Hwy. 16 | 45 | 15,329.34 |
| Edmonton to Lloydminster | 153 | 50,443.53 |
| *Marsden Corner to Lloydminster and North | 48 | 4,569.66 |
| Viking to Battle River | 52 | 6,971.96 |
| Wainwright to Elk Point Bridge | 73 | 8,990.51 |
| Bruderheim to Myrnam | 93 | 24,790.85 |
| Cooking Lake Highway to Airport | 1 | 286.19 |
| 3 miles South of Didsbury to Wetaskiwin | 102 | 31,144.68 |
| Red Deer to Windy Point | 129 | 29,833.70 |
| Compeer to Nevis | 144 | 59,988.67 |
| Nevis to Norbuck Junction | 97 | 30,150.52 |
| Wetaskiwin to Norbuck Junction | 51 | 12,491.96 |
| Bentley to Sylvan Lake | 11 | 2,933.89 |
| 1 mile South of Twining to Bashaw | 80 | 18,971.82 |
| Olds to Sundre | 24 | 9,817.82 |
| Hanna to Battle River | 63 | 11,692.57 |
| Penhold to Lousana | 28 | 10,022.51 |
| Tees to Mirror | 9 | 1,349.04 |
| Bentley to Withrow Corner | 19 | 1,259.51 |
| Cold Lake to N.W. 30-59-11-4 | 103 | 53,605.70 |
| Lac La Biche to N.W. 24-67-19-4 | 33 | 10,250.86 |
| Edmonton to Jasper Park Boundary | 199 | 128,105.12 |
| Jasper Highway to Kapasiwin Beach | 2 | 152.24 |
| Jasper Highway to Seba Beach | 2 | 2,026.76 |
| Jasper Highway to Peers and McLeod River | 9 | 563.72 |
| Alberta Beach Road | 6 | 904.83 |
| To Country Club | 2 | 3,167.91 |
| Leduc to Norbuck Junction | 55 | 13,348.73 |
| Carvel Corner to Whitecourt | 85 | 24,382.36 |
| Hickerdike to Mountain Park | 68 | 15,252.04 |
| Leyland to Luscar | 4 | 556.21 |
| Coalspur to Foothills | 12 | 1,724.96 |
| Edmonton to Faust | 218 | 102,393.51 |
| Edmonton to Fort Saskatchewan Bridge | 11 | 8,327.19 |
| Clyde to Fort Assiniboine | 56 | 18,751.21 |
| Edmonton to N.E. 25-59-12-4 | 110 | 38,723.70 |
| Namao to Coronado | 21 | 5,387.75 |
| Westlock to Smith | 78 | 25,883.59 |
| N.W. 24-67-19-4 to Junction Highway 28 | 61 | 9,463.09 |
| Dunvegan to Pouce Coupe | 113 | 45,530.93 |
| Triangle to Grande Prairie | 106 | 43,116.93 |
| Faust to Dunvegan | 190 | 78,663.17 |
| Grimshaw to North Provincial Boundary | 303 | 61,435.09 |
| Donnelly to Watino | 22 | 6,073.06 |
| General | | 90,459.03 |
| | 4,876 | \$1,791,515.05 |

ORDINARY MAINTENANCE — \$1,503,990.76
SNOW REMOVAL — 287,524.29

TOTAL — \$1,791,515.05

*Maintenance of this highway undertaken by the Province of Saskatchewan; the Province of Alberta paying 50% of the Maintenance charges.

EXPENDITURE ON CONSTRUCTION AND MAINTENANCE OF DISTRICT HIGHWAYS AND LOCAL ROADS
FOR THE YEAR ENDED MARCH 31, 1951

GRANTS TO IMPROVEMENT DISTRICTS

| I.D. | TOTAL |
|--------------------|--------------|
| General | \$ 38,872.13 |
| General District 1 | 11,663.01 |
| General District 2 | 5,818.53 |

| | |
|---------------------|----------------|
| General District 3] | |
| General District 4] | |
| General District 6 | 6,291.65 |
| General District 7 | 8,875.41 |
| General District 8 | 9,757.03 |
| General District 9 | 8,207.04 |
| General District 11 | 6,750.44 |
| General District 12 | 12,444.13 |
| I.D. 1 | 7,715.43 |
| I.D. 10 | 8,368.16 |
| I.D. 11 | 14,266.75 |
| I.D. 21 | 33,528.52 |
| I.D. 22 | 34,753.74 |
| I.D. 23 | 5,207.07 |
| I.D. 27 | 27,809.73 |
| I.D. 39 | 12,207.94 |
| I.D. 41 | 20,054.21 |
| I.D. 42 | 4,526.14 |
| I.D. 46 | 21,336.52 |
| I.D. 50 | 30,098.78 |
| M.D. 55 | 36,749.31 |
| M.D. 57 | 3,275.94 |
| I.D. 58 | 1,430.43 |
| I.D. 65 | 12.00 |
| I.D. 68 | 64,949.29 |
| I.D. 69 | 1,251.72 |
| I.D. 76 | 188.10 |
| I.D. 77 | 85,695.02 |
| I.D. 78 | 32,636.15 |
| I.D. 79 | 36,259.62 |
| I.D. 85 | 1,602.32 |
| I.D. 95 | 1,642.63 |
| I.D. 96 | 48,879.74 |
| I.D. 101 | 162.83 |
| I.D. 102 | 76,802.13 |
| I.D. 107 | 96,569.65 |
| I.D. 108 | 18,253.20 |
| I.D. 109 | 78,024.05 |
| I.D. 111 | 29,121.42 |
| I.D. 121 | 6,764.77 |
| I.D. 122 | 98.09 |
| I.D. 124 | 3,546.53 |
| I.D. 125 | 1,675.79 |
| I.D. 126 | 25,657.19 |
| I.D. 128 | 32,346.11 |
| I.D. 130 | 623.69 |
| I.D. 131 | 37,188.36 |
| I.D. 132 | 17,162.68 |
| M.D. 133 | 44,501.00 |
| I.D. 134 | 3,528.88 |
| I.D. 138 | 50,565.24 |
| I.D. 139 | 46,982.51 |
| I.D. 143 | 84,470.55 |
| I.D. 146 | 1,470.00 |
| I.D. 147 | 1,942.59 |
| Special Areas: | 8,800.76 |
| Bow West | 1,482.79 |
| Indian Reserves: | |
| D2 (B.I.R.) | 21,476.12 |
| 2 (P.I.R.) | 6,965.92 |
| 4 | 19,749.29 |
| 6 | 10,015.21 |
| 7 | 6,872.98 |
| 9 | 3,884.86 |
| | \$1,379,769.87 |

EXPENDITURE ON CONSTRUCTION AND MAINTENANCE OF DISTRICT
HIGHWAYS AND LOCAL ROADS
FOR THE YEAR ENDED MARCH 31, 1951

GRANTS TO MUNICIPAL DISTRICTS

| M.D. | Total |
|------|--------------|
| 2 | \$ 33,842.00 |
| 4 | 39,584.00 |
| 5 | 44,736.00 |
| 6 | 22,500.00 |
| 9 | 24,498.00 |
| 13 | 13,999.00 |
| 14 | 23,326.00 |
| 16 | 21,588.00 |
| 25 | 43,228.00 |
| 26 | 40,418.00 |
| 28 | 57,684.00 |
| 29 | 32,829.00 |
| 30 | 26,562.00 |
| 31 | 35,646.00 |

DEPARTMENT OF PUBLIC WORKS

| | |
|----------------|----------------|
| 32 | 27,539.00 |
| 34 | 9,364.78 |
| 40 | 28,372.00 |
| 43 | 35,150.00 |
| 44 | 39,167.00 |
| 45 | 18,399.00 |
| 47 | 36,781.00 |
| 48 | 59,691.02 |
| 49 | 66,853.00 |
| 52 | 23,576.00 |
| 53 | 29,832.89 |
| 54 | 60,917.00 |
| 55 | 78,920.00 |
| 56 | 12,299.05 |
| 57 | 15,083.00 |
| 61 | 40,479.46 |
| 62 | 53,313.60 |
| 63 | 76,826.00 |
| 64 | 55,554.00 |
| 66 | 52,995.00 |
| 71 | 72,968.00 |
| 72 | 46,069.00 |
| 73 | 50,750.00 |
| 74 | 41,183.00 |
| 75 | 65,221.00 |
| 81 | 65,797.00 |
| 82 | 57,122.00 |
| 83 | 48,243.00 |
| 84 | 39,781.00 |
| 86 | 48,909.14 |
| 87 | 9,819.00 |
| 88 | 9,797.80 |
| 89 | 63,209.00 |
| 90 | 44,783.43 |
| 91 | 35,365.00 |
| 92 | 55,287.00 |
| 93 | 56,763.00 |
| 94 | 19,341.26 |
| 103 | 49,575.00 |
| 127 | 61,876.00 |
| 133 | 10,861.67 |
| 135 | 13,023.20 |
| 136 | 14,968.00 |
| *General | 3,411.89 |
| | \$2,260,657.19 |

*Note—General is expenses incurred by Engineering Inspections.

SUMMARY

| | |
|--|----------------|
| INCOME ACCOUNT | |
| Appropriation 707-1a Grants to I.D.'s..... | \$1,379,769.87 |
| Appropriation 707-1b Grants to S.A.'s..... | 70,000.00 |
| Appropriation 707-1c Grants to M.D.'s..... | 2,260,657.19 |
| | \$3,710,427.06 |

Note—Salaries are included in Appropriation 724.

EXPENDITURE ON OPERATION, MAINTENANCE AND REPLACEMENT OF FERRIES
FOR YEAR ENDING MARCH 31st, 1951

| Location | River | Operation and Maintenance | Replacement | Total |
|------------------------------|--------------------------|---------------------------------|-------------|----------|
| Desjarlais | North Saskatchewan | \$ 3,606.56 | 2,558.47 | 6,195.03 |
| Holmes Crossing | Athabasca | 4,226.00 | 4,348.42 | 8,574.42 |
| Dorothy | Red Deer | 1,742.49 | 275.79 | 2,018.28 |
| Pakan | North Saskatchewan | 3,023.17 | — | 3,023.17 |
| Garrington | Red Deer | 2,725.39 | — | 2,725.39 |
| *North of Lloydminster | North Saskatchewan | 1,257.84 | — | 1,257.84 |
| Athabasca | Athabasca | 5,306.04 | 3,112.01 | 8,418.05 |
| Tolman Crossing | Red Deer | 3,101.01 | 81.88 | 3,182.89 |
| Lett's Crossing | Pembina | 1,126.11 | 500.00 | 1,626.11 |
| Shandro | North Saskatchewan | 4,014.50 | 3,320.03 | 7,334.53 |
| Hopkins | North Saskatchewan | 1,231.07 | — | 1,231.07 |
| Hutton | Red Deer | 1,574.96 | — | 1,574.96 |
| Lac Ste. Anne | Lac Ste. Anne | 1,301.30 | — | 1,301.30 |
| Lea Park | North Saskatchewan | 4,703.49 | 608.78 | 5,312.27 |
| Eldorena | North Saskatchewan | 2,349.13 | — | 2,349.13 |
| Sangudo | Pembina | 1,171.16 | — | 1,171.16 |
| South of Holburn | North Saskatchewan | 2,682.84 | — | 2,682.84 |
| Dunvegan | Peace | 5,256.75 | — | 5,256.75 |
| Bow Island | South Saskatchewan | 1,983.36 | — | 1,983.36 |
| North of Myrnam | North Saskatchewan | 3,907.54 | — | 3,907.54 |
| Genesse | North Saskatchewan | 2,256.87 | — | 2,256.87 |
| Steveville | Red Deer | 3,435.71 | — | 3,435.71 |
| West of Munson | Red Deer | 1,895.78 | — | 1,895.78 |

| | | | | |
|---|--------------------------|--------------|-------------|--------------|
| Berrymoor | North Saskatchewan | 2,155.79 | 2,500.15 | 4,655.94 |
| Finnegan | Red Deer | 1,484.18 | 444.65 | 1,928.83 |
| Lindbergh | North Saskatchewan | 2,188.27 | 135.71 | 2,323.98 |
| Allendale Crossing | McLeod | 2,002.04 | ..... | 2,002.04 |
| Vinca | North Saskatchewan | 5,413.59 | 238.18 | 5,701.77 |
| McLeod Valley | McLeod | 2,368.96 | ..... | 2,368.96 |
| North of Jenner | Red Deer | 2,988.50 | ..... | 2,988.50 |
| Gregory Crossing | Red Deer | 1,840.08 | 325.85 | 2,165.93 |
| Elk Point | North Saskatchewan | 1,455.52 | ..... | 1,455.52 |
| West of Morrin | Red Deer | 2,564.08 | 17.10 | 2,581.18 |
| Woodbend | North Saskatchewan | 8,121.09 | 145.24 | 8,266.33 |
| South of Falher | Little Smoky | 2,802.89 | ..... | 2,802.89 |
| Grovedale | Wapiti | 2,405.30 | 1,962.56 | 4,367.86 |
| Klondyke Crossing | Athabasca | 1,855.79 | 136.24 | 1,992.08 |
| Flatbush | Pembina | 1,778.99 | ..... | 1,773.99 |
| South of Wembley | Wapiti | 8,177.14 | 2,312.63 | 5,489.77 |
| East Coulee | Red Deer | 6,049.36 | 251.82 | 6,300.68 |
| West of Fawcett | Fembina | 1,887.16 | ..... | 1,887.16 |
| South of Crowfoot | Bow | 1,608.80 | ..... | 1,608.80 |
| South of Fawcett | Pembina | 1,599.48 | ..... | 1,599.48 |
| Waskateneau | North Saskatchewan | 3,271.20 | ..... | 3,271.20 |
| Blue Ridge | Athabasca | 4,664.69 | 67.40 | 4,732.09 |
| Mahaska | McLeod | 1,011.21 | ..... | 1,011.21 |
| North of Atlee | Red Deer | 2,191.91 | ..... | 2,191.91 |
| Watino | Big Smoky | 6,594.87 | ..... | 6,594.87 |
| Forbesville | North Saskatchewan | 2,454.43 | ..... | 2,454.43 |
| South of Empress | South Saskatchewan | 3,554.81 | ..... | 3,554.81 |
| Rosevear | McLeod | 1,461.88 | ..... | 1,461.88 |
| Warspite | North Saskatchewan | 1,934.38 | ..... | 1,934.38 |
| Ft. Vermilion | Peace | 2,296.38 | ..... | 2,296.38 |
| Heinsburg | North Saskatchewan | 4,413.03 | 24.15 | 4,437.18 |
| Beauvallon | North Saskatchewan | 1,616.76 | ..... | 1,616.76 |
| Bowslope | Bow | 3,896.60 | 194.23 | 3,590.83 |
| Ferries Maintenance and Operation (General) ..... | ..... | 6,750.83 | ..... | 6,750.83 |
| | | \$164,738.56 | \$23,640.79 | \$188,374.35 |

*This Ferry on the 4th Meridian is Operated by the Province of Saskatchewan; the Province of Alberta Paying 50% of the operating cost.

EXPENDITURE ON FERRIES-CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1951

| Location | River | Installation |
|------------------------------------|--------------------------|--------------|
| Holmes Crossing | Athabasca | \$ 580.00 |
| Dorothy | Red Deer | 213.09 |
| Tolman Crossing | Red Deer | 1,187.00 |
| Hopkins | North Saskatchewan | 10.64 |
| Dunvegan | Peace | 35,275.87 |
| North of Myrnam | North Saskatchewan | 10.65 |
| Lindbergh | North Saskatchewan | 10.65 |
| Allendale Crossing | McLeod | 30.05 |
| Vinca | North Saskatchewan | 2,288.28 |
| Grovedale | Wapiti | 19.00 |
| South of Wembley | Wapiti | 19.00 |
| East Coulee | Red Deer | 66.10 |
| Forbesville | North Saskatchewan | 381.04 |
| Heinsburg | North Saskatchewan | 10.66 |
| Beauvallon | North Saskatchewan | 10.64 |
| Ferries Construction General ..... | ..... | 125.00 |
| | | \$40,237.67 |

SUMMARY

| | |
|--------------------------|--------------|
| Appropriation—704B | \$188,374.35 |
| Appropriation—752B | 40,237.67 |
| | \$228,612.02 |

BRIDGE CONSTRUCTION AND MAINTENANCE

April 1st, 1950, to March 31st, 1951

(L. G. GRIMBLE, *Chief Bridge Engineer*)

SUMMARY OF WORK UNDERTAKEN:

The ferry service over the North Saskatchewan River at Devon was replaced by a steel bridge on concrete piers. This bridge consisted of 1—200', 3—150', and 1—80' and 1—70' steel spans with a 24' clear roadway.

A reinforced concrete arch was built at Lundbreck Falls over the Crowsnest River on a new alignment of main highway No. 3. The total length of the bridge is 242' and replaces a steel truss bridge.

A 280' long 3 span continuous reinforced concrete girder bridge was constructed over the Castle River near Cowley on the new alignment of main highway No. 3, replacing a steel truss span bridge on concrete piers.

A 140' 3 span continuous reinforced concrete girder bridge was constructed over the Lethbridge Northern Irrigation Canal on main highway 23-A-1 south of Barons.

The Pat's Creek Underpass under the Northern Alberta Railway Tracks on Highway 2-G-4, in the Town of Peace River was reconstructed, to a 40' steel girder span over the highway.

A 220' long reinforced concrete arch culvert was constructed under 65' of fill at Rock Creek on main highway 3-B-3 eliminating a long narrow steel trestle bridge.

Concrete piers were built and a new deck was placed on Willow Creek Bridge on main highway No. 2, north of Macleod.

A 30' reinforced concrete rigid frame bridge was constructed over Allison Creek on main highway 3-B-4, near Coleman.

A new bridge was constructed over Kneehill Creek on main highway 21-A-1. It consists of 1—80' steel pony truss on concrete piers with 1—20' precast concrete approach span each end.

A 68' long precast concrete bridge on timber piles was constructed over Parlby Creek, north of Mirror on main highway 21-B.

A new traffic deck and a protection signal light system were installed on the combined railway and highway bridge over Peace River at Peace River on main highway No. 2.

An 80' girder bridge with concrete abutments was constructed over the West Prairie River in the town of High Prairie on main highway 2-G-2. A long river diversion was made at the new bridge site.

A reinforced concrete overpass was constructed over the C.P.R. railway tracks on main highway No. 12-C, north of Alix.

A 100' steel span with 3—20' precast concrete spans was constructed on concrete piers over the Medicine River at Gilby on main highway 43.32.

Work was started on bridge construction of the Trans-Canada Highway. Some small precast concrete and timber bridges were constructed as well as steel culverts, replacing timber bridges. Surveys and designs were prepared for the new large concrete structures to be built 1951-1952.

SUMMARY OF WORK UNDERTAKEN—1951-52

STEEL BRIDGES:

| | |
|---------------------|-----|
| Reconstructed | 15 |
| Constructed | 12 |
| Repaired | 108 |
| Minor Repairs | 27 |

PRECAST CONCRETE BRIDGES:

| | |
|--------------------------------|----|
| Reconstructed | 14 |
| Reconstructed Cattlepass | 1 |

REINFORCED CONCRETE BRIDGES:

| | |
|-------------------|---|
| Constructed | 6 |
|-------------------|---|

REINFORCED CONCRETE CULVERTS:

| | |
|-------------------|---|
| Constructed | 1 |
| Repaired | 1 |
| Extended | 2 |

STEEL CULVERTS:

| | |
|---------------------------------|-----|
| New Construction | 3 |
| Replacing Bridges | 137 |
| Replacing timber culverts | 10 |
| Repaired | 7 |
| Replace concrete culverts | 1 |
| Replace steel culverts | 1 |

TIMBER CULVERTS:

| | |
|------------------------|---|
| Replace bridge | 1 |
| New Construction | 1 |
| Repair | 7 |

TIMBER CATTLEPASS:

| | |
|-------------------|----|
| Constructed | 10 |
| Extended | 5 |

TIMBER BRIDGES:

| | |
|------------------------|-----|
| Reconstruct | 138 |
| New Construction | 30 |
| Repair | 129 |
| Minor Repair | 118 |
| Total | 755 |

MAIN HIGHWAYS BRANCH

(A. FRAME, *Highway Commissioner*)

During the 1950 season a total of 531.69 miles of highways were graded, 48.42 miles were re-conditioned and 19.94 miles were widened. 759.59 miles of highways were gravel surfaced.

In addition 253.09 miles of Stabilized Base Course were placed, together with 235.36 miles of Hot Plant Mix Surface Course and 28.31 miles of Road Mix Surface Course. 14.29 miles of Bituminous Surface Treatment were also done and 252.43 miles of centre-line stripping were painted.

On the 24th day of April an agreement was formally entered into with the Government of Canada for the construction of the Trans-Canada Highway. Two contracts were awarded, one for grading and graveling from Strathmore to Gleichen Corner and the other for grade widening and asphaltic surfacing from Gleichen Corner to Bassano. 10.71 miles were completed on the first mentioned project and 2.79 miles of grade was widened on the second. This work is included in the above totals.

Grading was completed on the extra two lanes of Highway No. 2 from Edmonton to Nisku. Asphalt Surfacing of this project would have been completed had it not been for unfavourable weather which delayed operations and eventually forced closing them down.

There was an unusual amount of wet weather during the fall and many projects could not be finished. The number which had to be carried over to the next season were 19 grading and graveling projects, and 5 asphaltic surfacing projects.

During the winter a considerable amount of gravel stockpiling was done under 8 contracts and 8 day labour projects. In addition there were three gravel surfacing projects. Clearing of right-of-way was done on 4 projects.

Work on the Whitecourt to Valleyview cut-off started in December with clearing Camps working from each end. Two Survey parties worked ahead of each clearing Camp. Aerial photographs assisted greatly in choosing the best location and one trip was made over the route by helicopter.

In addition to the above mentioned survey parties on winter location, there were 31 other parties on preliminary surveys during the winter. Included in this work were 4 parties on the Trans-Canada Highway.

Following is a statement of the work performed during the year ended March 31, 1951.

DEPARTMENT OF HIGHWAYS

HIGHWAY CONSTRUCTION 1950-51

GRADING—MAIN HIGHWAYS

| Highway | Location | Miles | Type | Work Done by |
|-----------|----------------------------------|-------|--------|--------------|
| 1-B-2 | Gleichen Corner-Bassano | 2.79 | G.W. | Contract |
| 1-B-3 | Strathmore-Gleichen Corner | 10.71 | S.E.G. | Contract |
| 2-A-1 | Cardston-Carway | 8.00 | S.E.G. | Contract |
| 2-D-3 | Edmonton-Nisku | 3.47 | S.E.G. | Day Labour |
| 2-E-2 & 3 | Clyde Corner-Perryvale | 28.36 | S.E.G. | Contract |
| 2-G-3 | Triangle-McLennan | 9.47 | S.E.G. | Contract |

| | | | | |
|-----------------------------------|---|--------------|--------|------------|
| 2-G-4 | Peace River Hill Revision | 1.43 | S.E.G. | Contract |
| 3-B-3 | Castle River Revision | .76 | S.E.G. | Contract |
| 3-B-3 | Lundbreck-Maple Leaf | 9.94 | S.E.G. | Contract |
| 3-B-4 | Coleman-Crowsnest | 6.82 | S.E.G. | Contract |
| 5-A-2 | Belly River-Waterton | 5.12 | S.E.G. | Contract |
| 6-A | Drywood River-Waterton | 14.12 | G.R. | Day Labour |
| 8-A | Calgary-Bowness | 4.72 | S.E.G. | Day Labour |
| 9-A-1 | Inverlaker-North of Keoma | 17.15 | G.W. | Contract |
| 9-A-1 | North of Keoma-Beiseker | 11.01 | S.E.G. | Contract |
| 9-A-2 | Beiseker-Kirby School | 25.57 | S.E.G. | Contract |
| 10-A | Drumheller-Rosedale | 2.73 | S.E.G. | Day Labour |
| 11-A-3 | Condor-Rocky Mountain House | 1.36 | S.E.G. | Contract |
| 11-B | W. of Rocky M'tn. House-W. of Ferrier | 7.27 | S.E.G. | Contract |
| 11-B | Horburg-Sauders | 3.32 | S.E.G. | Contract |
| 11-B | Saunders-Nordegg | 13.45 | S.E.G. | Contract |
| 12-A | Compeer-Altarlo | 8.93 | S.E.G. | Contract |
| 12-B-2 | Castor-Botha | 26.23 | S.E.G. | Contract |
| 12-C-1 | Alix West | 3.58 | S.E.G. | Contract |
| 14-C-3 | Edmonton-Cooking Lake | 14.79 | S.E.G. | Contract |
| 15-A-2 | Chipman-Mundare | 18.01 | S.E.G. | Day Labour |
| 16-B-2 | Bremner Underpass | .25 | S.E.G. | Day Labour |
| 16-B-2 | Beverly Connection | .44 | S.E.G. | Day Labour |
| 16-C-3 | Evansburg West | .60 | S.E.G. | Day Labour |
| 16-D-1 | Carrot Creek-Edson | 14.54 | S.E.G. | Contract |
| 16-D-2 | Edson-Galloway | 19.10 | G.R. | Day Labour |
| 36-A-3 | Castor-Garden Plain | 23.57 | S.E.G. | Contract |
| 37-A | Gibbons-Coronado | .62 | S.E.G. | Day Labour |
| Total | | 318.28 Miles | | |
| S.E.G. Standard Earth Grade | | 265.12 Miles | | |
| G.W. Grade Widening | | 19.94 Miles | | |
| G.R. Grade Reconditioning | | 33.22 Miles | | |
| By Contract | | 254.17 Miles | | |
| By Day Labour | | 64.11 Miles | | |

GRADING—SECONDARY HIGHWAYS

| Highway | Location | Miles | Type | Work Done by |
|-----------------------------------|---------------------------------|--------------|---------------|--------------|
| 12-D-2 | Hoadley-Winfield | 10.10 | S.E.G. | Day Labour |
| 21-A-1 & 2 | Swalwell-Huxley | 27.98 | S.E.G. | Contract |
| 21-B-1 | Jct. Hwy. No. 12-Bashaw | 16.68 | S.E.G. | Contract |
| 23-A-2 | Vulcan-Jct. Hwy. No. 24 | 11.83 | S.E.G. | Contract |
| 28-B-3 | St. Paul-Shamrock Valley | 12.04 | S.E.G. | Contract |
| 28-C-2 | Fort Kent-East of Rife | 14.94 | S.E.G. | Contract |
| 31-A | Seba Beach Hwy. | 2.00 | S.E.G. | Day Labour |
| 35-A-1 | Bear Creek-Dixonville | 11.45 | S.E.G. | Contract |
| 39-A-1 | Leduc-5th Meridian | 14.50 | S.E.G. | Contract |
| 39-A-2 | Breton-Norburn | 6.72 | S.E.G. | Day Labour |
| 41-A-2 | Vermilion-Rusylvia | 5.43 | S.E.G. | Contract |
| 41-A-2 | Rusylvia-Elk Point | 17.57 | S.E.G. | Contract |
| 41-A-2 | Elk Point-Shamrock Valley | 2.67 | S.E.G. | Day Labour |
| 42-A | Penhold-Pine Lake | 15.20 | G.R. | Day Labour |
| 43-A-2 | Blue Ridge-Whitecourt | 11.32 | S.E.G. | Day Labour |
| 46-A | Alpen-Radway | 30.52 | S.E.G. | Day Labour |
| 48-A-2 | Irvine-Elkwater | 21.09 | S.E.G. | Contract |
| 49-A-1 | Falher-Watino | 8.77 | S.E.G. | Day Labour |
| 49-A-2 | Watino-Belloy | 16.38 | S.E.G. | Day Labour |
| 51-A | Bentley-Withrow Corner | 18.72 | S.E.G. | Contract |
| Total | | 270.91 Miles | | |
| S.E.G. Standard Earth Grade | | 255.71 | By Contract | 172.23 Miles |
| G.R. Grade Reconditioning | | 15.20 Miles | By Day Labour | 98.68 Miles |

MISCELLANEOUS

| Highway | Location | Miles | Type | Work Done by |
|-----------------------------------|------------------------------------|-------------|--------|--------------|
| 8-A | Keith Sanitarium Connection | .91 | S.E.G. | Day Labour |
| 12-A | Compeer Connection | .95 | S.E.G. | Contract |
| 16-C-1 | Access Road, Jasper Place | .28 | S.E.G. | Day Labour |
| 43-33 | Welling-Raymond | 3.00 | S.E.G. | Day Labour |
| 42-65 | Withrow Corner-Withrow | 5.50 | S.E.G. | Day Labour |
| 44-A-1 | Curve Revision North of Dapp | .22 | S.E.G. | Day Labour |
| Total | | 10.86 Miles | | |
| S.E.G. Standard Earth Grade | | 10.86 Miles | | |
| By Contract | | .95 Miles | | |
| By Day Labour | | 9.91 Miles | | |

DEPARTMENT OF PUBLIC WORKS

GRADING SUMMARY

| | Main Hwy. | Secondary Hwy. | Miscellaneous | Totals |
|----------------------------|-----------|----------------|---------------|--------|
| Standard Earth Grade | 265.12 | 255.71 | 10.86 | 531.69 |
| Grade Widening | 19.94 | ..... | ..... | 19.94 |
| Grade Reconditioning | 33.22 | 15.20 | ..... | 48.42 |
| Totals | 318.28 | 270.91 | 10.86 | 600.05 |
| By Day Labour | 64.11 | 98.68 | 9.91 | 172.70 |
| By Contract | 254.17 | 172.23 | .95 | 427.35 |
| Totals | 318.28 | 270.91 | 10.86 | 600.05 |

FIRST COURSE GRAVEL SURFACING

MAIN HIGHWAYS

| Project | Location | Miles | Work Done by |
|---------------------|--|--------|--------------|
| 1-B-3 | Strathmore-Gleichen Corner | 13.90 | Contract |
| 2-A-1 | Cardston-Carway | 13.10 | Contract |
| 2-E-2 & 3 | Clyde Corner-Perryvale | 23.36 | Contract |
| 2-G-3 | Triangle-McLennan | 4.74 | Contract |
| 2-G-4 | Peace River Hill Revision | 5.62 | Contract |
| 3-B-3 | Castle River Revision | .76 | Contract |
| 3-B-3 | Lundbreck-Maple Leaf | 9.94 | Contract |
| 3-B-4 | Coleman-Crowsnest | 6.82 | Contract |
| 5-A-2 | Belly River-Waterton | 5.12 | Contract |
| 6-A | Drywood River-Waterton | 14.11 | Contract |
| 9-A-1 | Inverlake-North of Keoma | 17.15 | Contract |
| 9-A-1 | North of Keoma-Beiseker | 11.01 | Contract |
| 9-A-2 | Beiseker-Kirby School | 24.73 | Contract |
| 10-A | Drumheller-Rosedale | 2.44 | Day Labour |
| 11-B | West of Rocky Mtn. House-West of Ferrier | 7.27 | Contract |
| 11-B | Horburg-Saunders | 3.32 | Contract |
| 11-B | Saunders-Nordegg | 10.50 | Contract |
| 12-A | Altario-Compeer | 8.93 | Day Labour |
| 12-B-2 | Botha-Castor | 20.36 | Contract |
| 12-C-1 | Alix West | 3.58 | Contract |
| 14-C-3 | Edmonton-Cooking Lake | 14.79 | Contract |
| 15-A-2 | Chipman-Mundare | 18.01 | Day Labour |
| 16-D-1 | Carrot Creek-Edson | 14.54 | Contract |
| 16-D-2 | Edson-Galloway | 11.86 | Contract |
| 16-D-2 | Edson-Galloway | 7.91 | Day Labour |
| 36-A-2 | Castor-Battle River | 4.09 | Contract |
| 36-A-3 | Castor-Garden Plain | 6.25 | Contract |
| 37-A | Gibbons-Coronado | 4.14 | Contract |
| 48-A-1 | Willow Creek-Wild Horse | 30.59 | Contract |
| 48-A-2 | Irvine-Elkwater | 21.09 | Contract |
| Total | | 345.03 | Miles |
| By Contract | | 307.74 | Miles |
| By Day Labour | | 37.29 | Miles |

FIRST COURSE GRAVEL SURFACING

SECONDARY HIGHWAYS

| Project | Location | Miles | Work Done by |
|---------------------|-------------------------------|--------|--------------|
| 12-D-2 | Bluffton-Norbuck | 23.65 | Contract |
| 21-A-1 | Swalwell-Huxley | 27.98 | Contract |
| 21-B | Jct. Hwy. No. 12-Bashaw | 16.68 | Contract |
| 23-A-2 | Vulcan-Jct. Hwy. No. 24 | 11.83 | Contract |
| 23-B-3 | St. Paul-Elk Point | 2.00 | Contract |
| 28-C-2 | Fort Kent-East of Rife | 11.50 | Contract |
| 31-A | Seba Beach Hwy. | 2.00 | Day Labour |
| 39-A-1 | Leduc-5th Meridian | 1.50 | Contract |
| 39-A-2 | Norbuck-Bretton | 6.57 | Contract |
| 41-A-2 | Vermilion-Elk Point | 35.43 | Contract |
| 43-A-2 | Blue Ridge-Whitecourt | 11.85 | Day Labour |
| 46-A-1 | Boyle-Radway | 37.81 | Contract |
| 46-A-1 | Boyle-Radway | 7.76 | Day Labour |
| 49-A-1 | Falher-Watino | 11.25 | Day Labour |
| 51-A | Bentley-Withrow Corner | 18.69 | Contract |
| Total | | 226.50 | Miles |
| By Contract | | 193.64 | Miles |
| By Day Labour | | 32.86 | Miles |

MISCELLANEOUS

| Project | Location | Miles | Work Done by |
|---------|-------------------------------|-------|--------------|
| 43-33 | Welling-Raymond | 3.00 | Day Labour |
| 12-A | Altario Connection | 1.15 | Day Labour |
| 12-A | Compeer Connection | .95 | Day Labour |
| 16-C-1 | Access Road Jasper Place | .28 | Day Labour |
| 44-A-1 | Curve Revision, North of Dapp | .22 | Day Labour |
| 42.65 | Withrow Corner-Withrow | 5.50 | Day Labour |
| | Total | 11.10 | |
| | By Day Labour | 11.10 | |

REPLACEMENT GRAVEL SURFACING

MAIN HIGHWAYS

| | | | |
|------|-----------------------------|-------|----------|
| 13-A | Amisk-Saskatchewan Boundary | 56.50 | Contract |
| | Total | 56.50 | Miles |
| | By Contract | 56.50 | Miles |

SECONDARY HIGHWAYS

| | | | |
|------------|-----------------------------------|--------|------------|
| 7-A & 22-A | Okotoks-Turner Valley | 15.33 | Contract |
| 35 | Grimshaw-North of Provincial Bdy. | 76.00 | Day Labour |
| 42-A | Penhold-Pine Lake | 17.68 | Contract |
| 17-B | Coalspur-Sterco | 10.00 | Day Labour |
| | Total | 119.01 | Miles |
| | By Contract | 33.01 | Miles |
| | By Day Labour | 86.00 | Miles |

MISCELLANEOUS

| | | | |
|--------|--------------------------|------|------------|
| 15-A-2 | Mundare-Jct. Hwy. No. 16 | 1.45 | Day Labour |
| | Total | 1.45 | Miles |
| | By Day Labour | 1.45 | Miles |

GRAVELLING SUMMARY

| | Main Hwy. | Secondary Hwy. | Miscellaneous | Totals |
|-------------------------|-----------|----------------|---------------|--------|
| First Course Gravelling | 345.03 | 226.50 | 11.10 | 532.63 |
| Replacement Gravelling | 56.50 | 119.01 | 1.45 | 176.96 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Totals | 401.53 | 345.51 | 12.55 | 759.59 |
| By Contract | 364.24 | 226.65 | ----- | 590.89 |
| By Day Labour | 37.29 | 118.86 | 12.55 | 168.70 |
| | <hr/> | <hr/> | <hr/> | <hr/> |
| Totals | 401.53 | 345.51 | 12.55 | 759.59 |

DEPARTMENT OF HIGHWAYS
STABILIZED BASE COURSE AND ASPHALTIC SURFACING
STABILIZED BASE COURSE

MAIN HIGHWAYS

| Highways | Location | Miles | Type | Work Done by |
|------------|-------------------------|--------|---------------------|--------------|
| 2-A-2 | Macleod-Cardston | 37.57 | Road Mix Stabilized | Contract |
| 2-D-2 | Ponoka Revision | 1.76 | Road Mix Stabilized | Contract |
| 2-D-3 | Nisku-Edmonton | 10.40 | Road Mix Stabilized | Day Labour |
| 2-H-1 | Peace River-Grimshaw | 14.84 | Road Mix Stabilized | Contract |
| 2-J-2 | Jct. Hwy. 34-G. Prairie | 4.00 | Road Mix Stabilized | Contract |
| 2-K-1 | G. Prairie-N., Wembley | 16.01 | Road Mix Stabilized | Contract |
| 3-A-1 2&3 | Barnwell-Winnifred | 49.62 | Road Mix Stabilized | Contract |
| 3-B-3 | Pincher-Lundbreck | 13.35 | Road Mix Stabilized | Contract |
| 6-A | Pincher-Drywood River | 16.25 | Road Mix Stabilized | Contract |
| 8-A | Calgary-Bowness | 4.72 | Road Mix Stabilized | Day Labour |
| 12-C-1 | Lacombe-Tees | 17.71 | Road Mix Stabilized | Contract |
| 13-B-4 | Wetaskiwin-Camrose | 20.05 | Road Mix Stabilized | Contract |
| 15-A-1 | Edmonton-Ft. Sask. | 5.90 | Road Mix Stabilized | Contract |
| 16-B-1 | Chipman Cor.-Vegreville | 21.00 | Road Mix Stabilized | Day Labour |
| 16-B-2 | Bremner Underpass | .29 | Road Mix Stabilized | Day Labour |
| 16-C-2 & 3 | Seba Corner-Styal | 18.71 | Road Mix Stabilized | Day Labour |
| | Total | 252.18 | Miles | |
| | By Contract | 197.06 | Miles | |
| | By Day Labour | 55.12 | Miles | |

DEPARTMENT OF PUBLIC WORKS

MISCELLANEOUS

| Highway | Location | Miles | Type | Work Done by |
|---------------|-----------------------|-------|---------------------|--------------|
| 11096 | Keith Sanitarium Con. | .91 | Road Mix Stabilized | Day Labour |
| Total | | .91 | Miles | |
| By Day Labour | | .91 | Miles | |

ASPHALTIC SURFACING

MAIN HIGHWAYS

| Highway | Location | Miles | Type | Work Done by |
|---------------|-------------------------|--------|---------------------------------|--------------|
| 2-A-2 | Macleod-Cardston | 37.57 | 2" Hot Plant Mix Surface Course | Contract |
| 2-D-2 | Ponoka Revision | 1.76 | 2" Hot Plant Mix Surface Course | Contract |
| 2-D-3 | Nisku-Edmonton | 5.60 | 2" Hot Plant Mix Surface Course | Day Labour |
| 2-H-1 | Peace River-Grimshaw | 9.10 | 2" Hot Plant Mix Surface Course | Contract |
| 2-J-2 | Jct. Hwy. 34-G. Prairie | 4.00 | 2" Hot Plant Mix Surface Course | Contract |
| 2-K-1 | G. Prairie-N. Wembley | 16.01 | 2" Hot Plant Mix Surface Course | Contract |
| 3-A-1 2&3 | Barnwell-Winnifred | 49.62 | 2" Hot Plant Mix Surface Course | Contract |
| 3-B-3 | Pincher-Lundbreck | 12.59 | 2" Hot Plant Mix Surface Course | Contract |
| 6-A | Pincher-Drywood River | 16.25 | 2" Hot Plant Mix Surface Course | Contract |
| 8-A | Calgary-Bowness | 4.72 | 2" Hot Plant Mix Surface Course | Day Labour |
| 12-C-1 | Lacombe-Tees | 17.71 | 2" Hot Plant Mix Surface Course | Contract |
| 13-B-4 | Wetaskiwin-Camrose | 15.62 | 2" Hot Plant Mix Surface Course | Contract |
| 15-A-1 | Edmonton-Ft. Sask. | 5.90 | 2" Hot Plant Mix Surface Course | Contract |
| 16-B-1 | Chipman Cor.-Vegreville | 19.00 | 2" Hot Plant Mix Surface Course | Day Labour |
| 16-B-2 | Bremner Underpass | .29 | 2" Hot Plant Mix Surface Course | Day Labour |
| 16-C-2 & 3 | Seba Corner-Styal | 18.71 | 2" Hot Plant Mix Surface Course | Day Labour |
| Total | | 234.45 | Miles | |
| By Contract | | 186.13 | Miles | |
| By Day Labour | | 48.32 | Miles | |

ASPHALTIC SURFACING

SECONDARY HIGHWAYS

| Highway | Location | Miles | Type | Work Done by |
|-------------|------------------------|-------|--------------------------------------|--------------|
| 19-A-1 | Wetaskiwin-Pigeon Lake | 23.31 | 2" Asphaltic Road Mix Surface Course | Contract |
| 27-A | Olds-Harmattan Corner | 14.29 | Bituminous Surface Treatment | Contract |
| Total | | 42.60 | Miles | |
| By Contract | | 42.60 | Miles | |

MISCELLANEOUS

| Highway | Location | Miles | Type | Work Done by |
|---------------|-----------------------|-------|---------------------------------|--------------|
| 11096 | Keith Sanitarium Con. | .91 | 2" Hot Plant Mix Surface Course | Day Labour |
| Total | | .91 | Miles | |
| By Day Labour | | .91 | Miles | |

SUMMARY

| | |
|--|--------------|
| By Contract (Hot Plant Mix Surface Course) | 186.13 Miles |
| By Day Labour (Hot Plant Mix Surface Course) | 49.23 Miles |
| By Contract (Road Mix Surface Course) | 28.31 Miles |
| By Contract (Bituminous Surface Treatment) | 14.29 Miles |
| Hot Plant Mix Surface Course | 235.36 Miles |
| Road Mix Surface Course | 28.31 Miles |
| Bituminous Surface Treatment | 14.29 Miles |

STABILIZED BASE AND ASPHALTIC SURFACING SUMMARY

| | | |
|--|-----------|-------------|
| Subgrade Preparation Gravel | 89,790 | Cubic Yards |
| Subgrade Preparation Clay | 107,458 | Cubic Yards |
| Stabilized Base Course Gravel | 1,739,616 | Tons |
| Asphaltic Surfacing Material | 741,871 | Tons |
| Shoulder Aggregate | 183,425 | Tons |
| Total Asphalt Used | 6,675,447 | Gallons |
| Seal Coat $\frac{1}{2}$ " Chips to Stockpile | 3,845 | Cubic Yards |

TOTAL GRAVEL QUANTITIES TAKEN OUT UNDER ALL PROJECTS

| | Day Labour | Contract | Total C.Y. |
|---|------------|-----------|------------|
| Pit Run to Trucks | 42,157 | 17,814 | 59,971 |
| Pit Run to Stockpile | 66,775 | 22,427 | 89,202 |
| Crush to Trucks | 255,087 | 1,072,475 | 1,327,562 |
| Crush to Stockpile | 347,302 | 787,739 | 1,135,041 |
| Crush from Stockpile | 89,391 | 121,227 | 210,618 |
| Crushed Gravel from Stockpile to Railway Cars | 105,040 | ..... | 105,040 |
| Totals | 905,752 | 2,021,682 | 2,927,434 |

CENTRE-LINE PAINTING

| Project | Location | Miles | Work Done by |
|-------------|----------------------------------|--------|--------------|
| 2-A-2 | Macleod-Cardston | 37.12 | Contract |
| 2-D-2 | Ponoka Revision | 1.76 | Contract |
| 3-A-1 | Medicine Hat-Winnifred | 25.08 | Contract |
| 3-A-1 & 2 | Winnifred-Taber | 44.36 | Contract |
| 3-B-3 | Pincher-Lundbreck | 12.59 | Contract |
| 6-A | Pincher-Drywood River | 16.22 | Contract |
| 12-C-1 | Lacombe-Tees | 17.71 | Contract |
| 12-D-1 | Lacombe-Bentley | 14.28 | Contract |
| 15-A-1 | Edmonton-Fort Saskatchewan | 13.00 | Contract |
| 16-A-1 | Lloydminster-Kitscoty | 15.33 | Contract |
| 16-C-2 & 3 | Seba Corner-Styal | 18.60 | Contract |
| 19-A-1 | Wetaskiwin-Pigeon Lake | 28.31 | Contract |
| 28-A-1 | Edmonton-Namao | 8.07 | Contract |
| Total | | 252.43 | |

MAIN HIGHWAYS CONSTRUCTION

STATEMENT OF EXPENDITURE APRIL 1, 1950-MARCH 31, 1951

| Project No. | Description | Highway Plant Mix Surface Course | | | | | | | | | | |
|--------------------------------|---------------------------------|--|-------------|-------------|-------------|------------|--------------|-----------------|-----------------------------------|--------------------------|--------------|-----------------------|
| | | Total | Engineering | Grading | Culverts | Fencing | Compaction | Moving Poles | Stabilized Gravel Surfacing | Prima Tack or Coat | Seal Coat | Tack Coat Subgrade |
| 100-000083 | General and Administration..... | \$ 222,956,666 | \$ 4,634,23 | \$ 4,635,20 | \$ 4,635,20 | \$ 190,225 | \$ 295.00 | \$ 8,642,80 | \$ 405.55 | \$ 44,985.86 | \$ 45,442.27 | \$ 270,802.51 |
| Pit Sturges, Carlton | | 17,380,54 | 46,26,55 | 46,26,55 | 46,26,55 | 1,147,62 | 148.39 | 157,020 | 1,085.35 | 1,418.35 | 1,418.35 | 1,418.35 |
| Carlton to Melville | | 83,133,12 | 5,202,41 | 5,202,41 | 5,202,41 | 1,147,62 | 1,147,62 | 1,147,62 | 1,147,62 | 1,147,62 | 1,147,62 | 1,147,62 |
| Made to Steveston | | 5,653,00 | 5,653,00 | 5,653,00 | 5,653,00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Navyell to Langley | | 5,157,35 | 5,157,35 | 5,157,35 | 5,157,35 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Navyell to Coquitlam | | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 | 186,565,01 |
| Cariboo to Castanet | | 8,250.40 | 131,184 | 131,184 | 131,184 | 247.00 | 247.00 | 247.00 | 247.00 | 247.00 | 247.00 | 247.00 |
| Cariboo to Bowron | | 91.39 | 1,950.89 | 1,950.89 | 1,950.89 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 | 24.00 |
| Cariboo to Williams Lake | | 50,821,84 | 50,821,84 | 50,821,84 | 50,821,84 | 133.07 | 133.07 | 133.07 | 133.07 | 133.07 | 133.07 | 133.07 |
| Cariboo to Prince George | | 407,000.63 | 407,000.63 | 407,000.63 | 407,000.63 | 71,109.46 | 71,109.46 | 71,109.46 | 71,109.46 | 71,109.46 | 71,109.46 | 71,109.46 |
| Pilot to Enderby | | 19,18,57 | 19,18,57 | 19,18,57 | 19,18,57 | 18,550.80 | 18,550.80 | 18,550.80 | 18,550.80 | 18,550.80 | 18,550.80 | 18,550.80 |
| Enderby to Kamloops | | 217,881,05 | 217,881,05 | 217,881,05 | 217,881,05 | 139,202,86 | 139,202,86 | 139,202,86 | 139,202,86 | 139,202,86 | 139,202,86 | 139,202,86 |
| Kamloops to Lillooet | | 38,553,26 | 14,680,84 | 14,680,84 | 14,680,84 | 14,16,50 | 14,16,50 | 14,16,50 | 14,16,50 | 14,16,50 | 14,16,50 | 14,16,50 |
| Lillooet to Whistler | | 21,07,73 | 21,07,73 | 21,07,73 | 21,07,73 | 18,92,73 | 18,92,73 | 18,92,73 | 18,92,73 | 18,92,73 | 18,92,73 | 18,92,73 |
| Whistler to Vancouver | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Vancouver to Squamish | | 23,588,22 | 23,588,22 | 23,588,22 | 23,588,22 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Squamish to Whistler | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Whistler to Sea to Sky Highway | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Sea to Sky Highway to Whistler | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Whistler to Lillooet | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Lillooet to Lillooet | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Lillooet to Williams Lake | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Williams Lake to Kamloops | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Kamloops to Quesnel | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Quesnel to Prince George | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Prince George to Hazelton | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Hazelton to Terrace | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Terrace to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Bella Coola to Port McNeill | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Port McNeill to Alert Bay | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 | 21,22,15 |
| Alert Bay to Bella Coola | | 10,25,18 | 9,42,71 | 9,42,71 | 9,42,71 | 21,22,15 | 21,22,15</td | | | | | |

SURVEYS BRANCH

Report for the Year Ending March 31st, 1951

(J. H. HOLLOWAY, *Director of Surveys*)

SURVEYS: FIELD WORK

During the year four field parties were employed from the first week in May until the end of October on surveys of main highways, new roadways, road diversions and miscellaneous surveys. The greater part of this work consisted of legal surveys of new main highways and widened highways necessitated by the continuously increasing volume of highway construction work being done by the Department. In order to complete surveys which were urgently required of one or two sections of main highways, it was necessary to obtain the services for the time being of a surveyor in private practice. Approximately 360 miles of main highways were surveyed during the 1950 season. This work involved, in addition, the res-establishment and re-survey of approximately 820 miles of intersected land lines.

In addition to surveys made in connection with main highways and other roads, two special surveys were undertaken for the Department of Mines and Minerals. These surveys involved the extension across the easterly and westerly ends of St. Albert settlement of the section lines in the adjacent township subdivisions for the purpose of establishing legal subdivision boundaries as reference lines for the purpose of locating proposed oil well sites in the new oil fields in that locality. The survey in the easterly portion of the settlement was undertaken by a Departmental surveyor and that in the westerly portion of the settlement by a surveyor in private practice. This work was carried out during the late summer and fall of 1950 and plans of these surveys were prepared by the Branch during the following winter months.

The Branch also made the necessary technical arrangements for a new township subdivision survey in the vicinity of Spirit River required by the Department of Lands and Forests for the purpose of establishing section boundaries in an area being newly opened for settlement. This work was commenced in June, 1950, and was carried out during the summer by a double survey party under the supervision of K. F. McCusker, Dominion and Alberta Land Surveyor, and the survey of approximately five townships was completed by the end of October. An extension of this survey into neighbouring townships will be undertaken during the 1951 season.

Other surveys carried out during the 1950 season in which the Branch was indirectly involved were the surveys of the westerly boundary of Wood Buffalo Park and the Provincial boundaries between Alberta and the North West Territories and between Alberta and British Columbia. The cost of the first two of these surveys is being shared equally by the Provincial and Dominion Governments and the cost of the Alberta-British Columbia boundary survey is shared equally by the Governments of Alberta, British Columbia and the Dominion. Approximately 76 miles of the Wood Buffalo Park boundary were surveyed during the months of July to September, 1950; approximately 96 miles of the Alberta-North West Territories boundary were surveyed during December, 1950, to April,

1951, and approximately 92 miles of the Alberta-British Columbia boundary were surveyed during June to September, 1950, and during January to March, 1951. All these surveys will be continued during the 1951 season and it is expected that during that season the survey of the entire boundary between Alberta and British Columbia will be completed.

SURVEYS: OFFICE WORK

Plans and office copies of field notes of surveys made during the preceding summer season were prepared by the District Surveyors and the assistant surveyors during the winter months. Seventy (70) plans were thus prepared in all cases in duplicate and in some cases in triplicate; fifty-two (52) other plans of survey were prepared by the drafting room staff during the year; eighty (80) plans of Provincial Government surveys and eighty-five (85) plans of Municipal District surveys were checked by the office staff prior to registration in the Land Titles Office; forty-two (42) other plans which were not required to be registered were also checked and approved. The drafting room staff also proceeded with the preparation of official plans of various new township sub-division surveys undertaken for the Department of Lands and Forests and did a considerable amount of checking work on the plans of surveys at St. Albert settlement, mentioned above, which were undertaken for the Department of Mines and Minerals.

The number of transfers prepared covering abandoned roadways and other lands no longer required by the Department of Highways was more than double the number in 1949-50. During the year 630 of these transfers were issued. The considerable increase is accounted for by the fact the construction of numerous new highways and other roads during the year rendered a large number of old roads and road diversions obsolete. In practically all cases these abandoned roadways were transferred to the owners of adjacent lands.

COMPENSATION FOR ROADWAYS

The same number of right-of-way buyers were employed during the year as in 1949-50. One of these men is stationed at Calgary and two at Edmonton. They are mainly employed on the negotiation of agreements for land required and property damages with the owners of lands affected by main highway construction. Over 2,000 agreements were completed with owners during the course of the year. An additional clerk was engaged during the year, bringing the office compensation staff up to three full-time employees and one part-time employee. There was a considerable increase in the number of compensation claims dealt with by the office. The number of payments during the year was 2,129, involving a total sum of \$352,200 as compared with 1,568 payments during the 1949-50 season, involving the sum of \$246,300.

Many of the compensation claims so dealt with were complicated and contentious but there was only one of these in which it was necessary to make settlement by arbitration proceedings. The hearing of the Arbitration Board in this case is being held in the month of June, 1951.

APPROVAL OF TOWNSITE PLANS

Pursuant to the regulations made under the provisions of The Public Works Department Act and The Town and Rural Planning Act,

335 plans of new townsites and of additions to existing townsites were approved with respect to the provisions made for streets, lanes and public reserves. This number was slightly higher than the number of plans approved during 1949-50. Thirty-one (31) Certificates of Title were issued to the Department upon registration of these plans for parcels reserved for public works and park purposes.

LEASES OF ROAD ALLOWANCES AND PUBLIC WORKS RESERVES

In accordance with arrangements made in 1948, the leasing of road allowances in the southern part of the Province continued to be handled by the Department of Lands and Forests while the Surveys Branch of the Department of Public Works remained responsible for leases of road allowances north of approximately Township 36.

During the fiscal year, 26 new road allowance leases were issued and 206 leases were renewed in the north part of the Province. Twenty-eight (28) existing leases of public works reserves at various urban points were renewed and 6 new public works reserve leases were issued.

PERMITS FOR UTILITIES, ETC. AFFECTING PUBLIC ROADWAYS

There was a further large increase in the number of plans approved and permits issued for pipe lines, power lines and other installations affecting public roadways. During the fiscal year 181 permits for new power lines were issued as compared with 128 for 1949-50 and 159 pipe line permits were issued as compared with 132 for 1949-50. The Branch also issued 28 permits for irrigation works affecting public roads and road allowances.

BLEUPRINTING AND MAP PRODUCTION

This part of the work of the Branch also increased considerably over the volume of work done during the preceding fiscal year. A new edition of the Provincial map showing Municipal boundaries was prepared and printed for the Department of Municipal Affairs and a large number of special maps were compiled by the Branch. Blueprinting work consumed 168,193 square feet of blueprint paper as compared with approximately 137,000 square feet for 1949-50.

The total value of map production and blueprinting work done by the Branch for the various Departments of the Government during the year was \$11,234.21 as compared with \$8,763.82 for the preceding fiscal year.

PURCHASES OF SITES FOR PUBLIC BUILDINGS

The volume of work done in this connection by the Branch in co-operation with the Buildings Branch of the Department of Public Works was approximately the same as for the preceding year.

Seventeen (17) Certificates of Title for new public building sites were received. The principal new sites purchased during the year were those required for: the new Administration Building at Edmonton; the new Land Titles Office Building at Edmonton; Provincial Buildings at Ponoka and Drumheller; Liquor Stores at Lethbridge and North Calgary;

the Public Works Building at Grande Prairie; the new Lethbridge Court House and the Bowden Reformatory School.

PROVINCIAL PARKS LEASES

The leasing of lots for summer cottages and other purposes in Provincial Parks was continued by the Branch and during the fiscal year 104 of these leases were issued or renewed. During the latter part of the year arrangements were made for the transfer of the Branch records in that connection to the Department of Lands and Forests, pursuant to arrangements made for the transfer of Provincial Parks administration to that Department on the first of April, 1951.

The following is a summary of the work of the Branch described above:

| | |
|---|-------|
| Surveys required and brought forward from 1949..... | 429 |
| Surveys asked for during 1950..... | 204 |
| Surveys made during 1950..... | 73 |
| Surveys carried over to 1951 | 560 |
| Plans submitted and examined on behalf of Municipal Districts..... | 85 |
| Plans prepared and filed in Land Titles Office..... | 80 |
| Other plans of survey prepared..... | 42 |
| Certificates of Title received for lands given for public purposes under Departmental regulations as to sub-divisions | 81 |
| Certificates of Title to public buildings..... | 17 |
| Transfers issued covering lands no longer required..... | 630 |
| Number of plans of sub-divisions approved..... | 835 |
| Plans submitted by Department of Water Resources..... | 28 |
| Plans of power and transmission lines approved..... | 840 |
| Vouchers issued for compensation..... | 2,129 |
| Leases of road allowances in force..... | 232 |
| New leases of road allowances issued | 26 |
| Leases of Public Works Reserves issued..... | 34 |

THE TOWN AND RURAL PLANNING ADVISORY BOARD

For the Year Ending March 31st, 1951

(J. H. HOLLOWAY, DIRECTOR OF TOWN AND RURAL PLANNING)

During the fiscal year ended March 31st, 1951, the continued economic development of the Province was again reflected, as in previous years, in the amount of work performed by the Provincial Planning Office. Land subdivision continued at the same record rate as in the previous few years, with 335 plans of subdivision being approved and approval fees on these plans being collected in the amount of \$8,714.00. Although this is only a slight increase on the number of plans approved during the previous year, the technical employees of the branch were called upon to do considerable additional work in the designing of subdivisions as the facilities of the branch are becoming more widely known to the public.

During the year one initial zoning bylaw and one zoning and building bylaw were passed and approved by the Minister, these bylaws being for the Town of Cardston and the Municipal District of Sturgeon respectively. One zoning order for the Hamlet of Wanham was also approved, while at the end of the year the branch was assisting six municipalities in the preparation of suitable zoning and building bylaws. In addition to the initial bylaws, twenty-seven amendments to existing bylaws were examined and approved.

A bylaw to appoint a Planning Advisory Commission for the City of Edmonton was passed and approved under the provisions of the 1950 amendments to The Town and Rural Planning Act. Under these same amendments the first Interim Development Order was issued by the Minister and the ensuing interim development bylaw of the City of Edmonton was passed and approved.

Seventy-eight applications for the approval of transfers of land were dealt with under the provisions of Section 35 of The Act. Approval was granted in sixty-four cases and refused in fourteen.

Eleven applications for approval of proposed tourist camps were dealt with during the course of the year, of which all were approved. Also, under the provisions of the regulations regarding development adjacent to declared highways, fourteen applications for the approval of service station sites were dealt with, of which three were rejected.

The branch was called upon to perform a considerable volume of advisory work. One of the major undertakings during the year was the establishment of the Edmonton District Planning Commission pursuant to the 1950 amendments of The Act. This Commission was set up to advise the City of Edmonton and the neighboring municipalities and towns on planning problems of joint concern to two or more of the represented municipalities, and is composed of one representative each from the City, the Municipal Districts of Stony Plain, Sturgeon, Morinville, Strathcona and Leduc and the Towns of Jasper Place, Beverly, St. Albert, Fort Saskatchewan, Devon and Morinville, with three provincial government representatives. The Commission and its technical staff has been engaged since its inception in the preparation of a general plan of development for the district and has dealt with a number of special

immediate projects. Its work is financed by a 50% contribution from the Province, 25% from the City and the remaining 25% from the municipalities and towns, to make up an estimated budget requirement of \$20,000.00 for the first year's operations.

As a result of the successful experience with the Edmonton District Planning Commission, initial steps were taken to establish three other commissions of this nature in the Province. The urban centres involved were Calgary, Lethbridge and Camrose. By the end of the year the organization of the Calgary Commission was almost completed and merely awaited the issuing of the Order in Council setting up the Commission.

A number of special studies were undertaken by the branch for various municipalities in the Province. A study was made for the Town of Redwater in order to determine how the special problems of that oil-boom town might be dealt with. The Town of Ponoka requested assistance in determining what areas should be included in the proposed extension of the town's boundaries, and at the same time took initial steps towards the preparation of a general plan for the enlarged town. The Village of Wildwood requested studies leading to the development of an official street plan and, on completion of these studies by the branch, the Village Council adopted the first official scheme in the history of the Province. The branch again co-operated with the Prairie Farm Rehabilitation Authority in designing the layout of a new townsite for the Bow River Irrigation District.

The branch undertook some studies of a general nature, so as to be able to give more precise advice to municipalities on the probable expansion of population and industry. Maps were compiled showing the distribution of population in the Province, of land classification, of relative relief, and of population density. To assist the members of the public who desire to subdivide land, a chart of subdivision procedure was prepared for distribution to all real estate agents, land surveyors and municipal councils. The branch also began the collection of background information on the physical resources of the Province and, at the same time, collected a number of basic technical studies on modern physical planning.

As a result of the rapid expansion of the Province, it was found that the declared highway regulations were not sufficiently broad in scope to prevent undesirable developments alongside these highways. The regulations were, accordingly, re-examined and revised and the Board has recommended that the revised regulations be made effective by Order-in-Council.

The branch continued its work of advising the various departments of the government on planning matters. In this connection a large number of proposed school sites were examined for the Department of Education, several subdivisions were designed for the Department of Lands and Forests, and a large number of proposed cancellations of plans of subdivisions were examined for the Board of Public Utility Commissioners.

During the latter part of the year, steps were taken to separate the Planning Office from the Surveys Branch and to set up the former as a separate branch under the Department of Municipal Affairs. New quarters were secured in the Alberta Jasper Building, and at the end

of the fiscal year the Town and Rural Planning Advisory Board was dissolved and a new board was set up under the 1950 amendments to the Town and Rural Planning Act. The new board to be known as the Provincial Planning Advisory Board, consists of the Honourable C. E. Gerhart, Minister of Municipal Affairs, Chairman; Mr. J. W. Judge, Deputy Minister of Municipal Affairs, and Mr. H. N. Lash.

Order-in-Council 431/51, which provided for the appointment of the new Board, also provides for the appointment of Mr. Lash as Director of Town and Rural Planning and Executive member of the Board, succeeding J. H. Holloway in that capacity on April 1st, 1951.

BUILDINGS BRANCH

Report for Fiscal Year Ending March 31, 1951

(A. ARNOLD, SUPERINTENDENT OF BUILDINGS)

The general repair and maintenance of all Public Buildings and Institutions has been carried on by the Branch as in previous years, to keep up standards.

Following is a list of the projects:

Bowden:

Preparations were made for the construction of the Provincial Institution.

Purchase of land, necessary for buildings and farm, was completed.

Brooks:

At the Demonstration Farm, fencing of the land was carried out, one bunkhouse was constructed, packing cellar was constructed as well as facilities for fruit storage.

Calgary:

Addition to incinerator at the Central Alberta Sanitorium.

Addition to garage and boiler house was commenced.

Fire hydrants were installed; new cement walks were laid and landscaping carried out.

Addition to Administration Building was commenced.

Main road from the street car was hard surfaced.

Purchase of dwelling for the Director was made.

Construction of Paint Storage building at the Highway Storage and Repair Shop.

Addition to Shop Building was made at the Education Building.

Laying of sidewalks and roads was completed.

Landscaping of grounds and water supply to grounds was commenced.

The duplex house was completed.

Laboratory and new house was completed.

Paving of roads and sidewalks was completed.

Fencing was erected on the grounds.

Building was purchased as Phy. Laboratory.

Property was purchased and alterations commenced for the Liquor Store.

Alterations and extension were made at the Red Cross Blood Donors Clinic.

Camrose:

Incinerator was constructed at the Provincial Auxiliary Home.

Canmore:

Construction was completed at the Ranger Station.

Claresholm:

New fire escape was installed at the Provincial Auxiliary Hospital.
Building was purchased as a Dormitory.

Crow's Nest Pass:

Purchase of land and construction of Highway Maintenance Shop was commenced.

Devon:

Extension was made to garage for Oil Conservation Board.

Drumheller:

Construction of Highway Maintenance Shop was commenced.
Construction began on the new Provincial Building.

Edmonton:

Road was widened and gravelled at the Animal Pathology Laboratory.
Construction of incinerator was commenced.

A fence was erected.

Construction was commenced on the Nurses' Home, Aberhart Memorial Sanitorium.

Construction of Laundry Building and Utility Building was commenced.

Construction was continued on the Aberhart Memorial Sanitorium.
Addition to the Nurses' Home was commenced.

Construction was completed at the Provincial Laboratory (Public Health).

Paving of roads and sidewalks was commenced at the University of Alberta.

Library Building was constructed.

Students' Union Building was constructed.

The water main was laid at the University Farm.

Fencing of the playing field, Physical Education, was completed.

The extension was constructed at the Power Plant.

Electrical changes were made on Ring Main.

University Farm staff cottage was completed.

Storage Shed, University Farm, was completed.

The Irrigation Lines, Plant Science, were completed.

Power lines, water lines to soil barn (quadrangle) were completed.

Completion of the Poultry battery building.

Fire protection for residences was completed.

New Oil Storage Warehouse was constructed at the Highway Storage Repair Shop.

Canopy for gas pumps was installed at the Government Garage.

Extension of water system on the Legislative Building grounds was carried on.

Curbing asphalt paving of roads.

Changing electrical system from DC to AC current.

An Avenue to Terrace Building and construction of emergency storm sewer were made.

Purchase of land and four weigh scale houses was commenced for Highway Traffic Board.

Construction was continued on the new Administration Building.

Construction commenced on the new Land Titles Building.

Paving and curbing of sidewalks was commenced at the Education Building.

Extension of electrical hook-up was commenced.

Soundproofing of the General Office in the Cafeteria was completed.

Alterations were made to the Liquor Store (Beaver House).

Landscaping was carried out at the Public Health building.

Plans were carried out for the erection of the Cerebral Palsy Clinic.

Landscaping was carried out at the Radio Station.

Edson:

Four unit garage was constructed at the Forestry Branch.

Construction of building for the Highway Maintenance Shop was completed.

Fairview:

Construction of the Agricultural School was carried on.

Fort Saskatchewan:

Male prisoners bathroom was installed at the Provincial Gaol.

Work was commenced in the Female cell block.

Construction commenced on the house for the Deputy Warden.

Construction commenced on two cottages for the male staff.

Fire-proof garage was constructed.

Two punishment cells were installed in the Female Gaol.

Extension to the Power House was commenced.

New septic tank was constructed.

Grande Prairie:

Moving of buildings from the army camp to Highway Maintenance Shop was completed.

Plans were drawn and land purchased for the Provincial Building.

Lac La Biche:

Boat-house was constructed for the Fisheries and Forestry Branch.

Lethbridge:

Shop for mixing grasshopper bait was constructed for the Field Crops Branch.

Additional corrals were constructed at the Provincial Gaol.

Alterations to the Gaol were completed.

Construction of a new Laundry Building commenced.

Two new houses for staff, with garage, were commenced.

Construction of piggery was completed.

Construction of Blacksmith shop was completed.

Lethbridge:

Alterations were made to the new Liquor Store.

Plans for construction of the new Court House Building.

Macleod:

Alterations were made to the main building, stock room, Storage and Repair Shop.

Landscaping and construction of roadways were carried out at the Tourist Reception Building.

Morinville:

Building was purchased for trucks, Road Maintenance Branch.

Olds:

Extension to gymnasium and new stage at the Agricultural School.

Extension of central heating to dormitory building.

Construction of Greenhouse was completed.

New well was drilled for the south farm.

Alterations to dormitory were made.

Oliver:

Construction commenced on the second wing of the T.B. Hospital, Provincial Mental Institute.

Addition to main kitchen was constructed.

New main sewer line was laid.

Corridor from No. 3 Building to dining room was constructed.

Addition was made to the barn.

The Dairy was completed.

Building of road was completed.

Extension to boiler house was made.

Workshop for Mechanical Branch was constructed.

Chimneys were converted from coal to gas.

Building was erected to house equipment at the Forest Nurseries.

Ponoka:

New air conditioning was installed at the Provincial Mental Institute.

Installation of electrical outlets was completed.

Old linen room was converted to medical offices.

Carpenter shop was constructed.

Alterations were made to business offices.

Addition was made to boiler room.

Red Deer:

New Dormitory was constructed at the Provincial Training School.

Alterations to inside of main building were commenced.

New root cellar was constructed.

Cement walks were laid, roads graded and landscaped.

Power house was completed.

Raymond:

Addition was made at the Laundry, Provincial Auxiliary Hospital. Grounds were landscaped, curbs and roads installed.

Redwater:

Offices were completed for Oil Conservation Board.

Landscaping was carried out, walks and fences constructed.

Additional houses were constructed for Petroleum and Natural Gas Conservation Board.

Slave Lake:

New cement basement installed and heating in office building at Ranger Station.

New bunkhouse was constructed.

Landscaping was carried out.

Construction of Highway Maintenance Shop was commenced.

St. Paul:

Construction of Blacksmith shop and extension to main shop, Highway Maintenance Shop.

Vermilion:

Roadways were gravelled on the Agricultural School grounds.

Two Texas gates on farm roads were installed.

Roadways on farm were graded.

Barracks were converted to 12-stall car garages.

Viking:

Construction of Highways Maintenance Shop commenced.

Post-War Reconstruction:

Addition to Beaver House was commenced for Liquor Control Board.

New Liquor Store was completed in West Edmonton.

BUILDINGS AND MAINTENANCE BRANCH-EXPENDITURE FOR 1950-51
CAPITAL EXPENDITURE

| | |
|--|----------------|
| 756 Furniture and Equipment (Legislative and Departmental Buildings and Public Institutions) | \$ 614,091.45 |
| 759 Sites and Construction..... | 7,435,089.30 |
| Post War Reconstruction Fund-Buildings | 264,306.23 |
| | \$8,313,487.03 |

INCOME EXPENDITURE

| | |
|---|----------------|
| 708 Administration | \$ 70,791.14 |
| 709 Legislative and Departmental Buildings..... | 1,207,808.71 |
| 710 Public Institutions..... | 193,295.40 |
| 713 Government House..... | 1,264.50 |
| | \$1,473,159.75 |

MECHANICAL BRANCH**Report for the Fiscal Year Ended March 31, 1951****(VERNON PEARSON, SUPERINTENDENT)**

This report deals with the activities of the following subdivisions of the Mechanical Branch for 1950-51.

1. The maintenance and operation of power plants and services of the eight largest institutions.
2. The administration of The Steam Boilers Act.
3. The administration of The Factories Act.
4. The administration of The Welding Act.
5. The administration of The Electrical Protection Act.

POWER PLANTS AND INSTITUTION MAINTENANCE:

The Power Plant statistics show that the output from the Government Power Plants increased over previous years, the most significant increase being in the use of natural gas as a fuel. 432 million cubic feet were used, an increase of 100 million over the previous year.

A new boiler having a capacity of 30,000 lbs. of steam per hour (approx. 1,000 H.P.) was installed in the Parliament Buildings Power Plant. This installation is in preparation for the increased load which will come about by the addition of new buildings. At the same time this move is quite opportune as the existing boilers have been in constant use for forty years.

At the Institute of Technology, Calgary, the one remaining coal fired boiler was converted to natural gas, thus eliminating coal entirely from this plant.

At Ponoka, a new 30,000 lb. per hour boiler was installed in a new annex to the boiler plant. This move became necessary because of the increasing load and the general unsatisfactory condition of the old boilers.

At the Fort Saskatchewan Gaol, a start was made on securing the boilers, valves, fittings, etc., required for the building of a new plant, which it is hoped will be substantially completed in 1951.

At the Oliver Mental Institute, further work was done in converting boilers from coal to natural gas with a view to eliminating the use of coal altogether in the near future.

At the Central Alberta Sanatorium, the main generating unit was rewound in order to increase its capacity. This became necessary due to the fact that new equipment ordered for this plant has not yet arrived and the load build up was exceeding the capacity of the plant.

The new Power Plant at the Red Deer Training School is almost complete except for connecting up water mains and a few minor jobs. It is expected that this plant will go into operation during the summer of 1951.

The general situation with regard to the maintenance and operation of Power Plants is satisfactory. The installation of new equipment has to a large extent relieved pressure under which these plants have been operating for several years. In most plants, old and obsolete equipment is being removed and replaced by new and more efficient equipment and it is hoped that within the next few years the plants will be thoroughly capable of taking care of any demands that may be made upon them.

PROVINCIAL GOVERNMENT POWER PLANT STATISTICS

For Year Ended March 31, 1951

(Vernon Pearson, Mechanical Superintendent)

ANNUAL REPORT, 1950-51

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| No. | Location | FUEL | | WATER | | ELECTRICITY | | MECHANICAL REFRIGERATION | |
|--|------------|----------------|---------------------|---|-----------|-------------|------------------|-----------------------------|---|
| | | Coal (Tons) | Gas (Cubic Feet) | Pumped from Local Sources (Imperial Gallon) | Purchased | Generated | Purchased | Tons | Expenditure for Maintenance and Operation |
| 1. Parliament Buildings and Administration Building, Edmonton..... | Nil | 74,126,000 | / | 17,302,712 | 684,980 | 707,520 | / | \$ 46,405.68 | |
| 2. Institute of Technology, Calgary | 163,09 | 25,892,000 | Nil | 13,047,747 | 219,400 | 68,600 | / | 21,049.23 | |
| 3. Ponoka Mental Hospital..... | 4,158,55 | 175,630,000 | 59,787,000 | ..... | 1,771,250 | ..... |  | 5,475 | 129,294.78 |
| 4. Fort Saskatchewan Gaol..... | 3,492,00 | ..... | 15,569,000 | ..... | 365,975 | ..... |  | 365 | 35,033.36 |
| 5. Lethbridge Gaol..... | 3,483,30 | ..... | 11,301,000 | 5,313,125 | 127,916 | ..... |  | ..... | 33,527.42 |
| 6. Oliver Mental Institute..... | 8,841,39 | 36,830,000 | ..... | 55,486,664 | 1,410,600 | ..... |  | 106,867.71 | |
| 7. Central Alberta Sanatorium, Calgary..... | 68,300,000 | 22,586,000 | ..... | 47,250 | ..... | 1,200 | | 45,704.13 | |
| 8. Provincial Training School, Red Deer..... | 52,095,000 | ..... | 11,469,088 | 11,600,005 | 129,240 | ..... |  | 41,582.26 | |
| Total..... | 20,277.33 | 432,873,000 | 109,243,000 | 102,619,336 | 5,171,376 | 905,360 | 7,040 | \$459,494.57 | |
| Total Coal Used..... | | | | | | 20,277.33 | Tons | | |
| Total Gas Used..... | | | | | | 432,873,000 | Cubic Feet | | |
| Total Water Used..... | | | | | | 211,862,336 | Imperial Gallons | | |
| Total Electricity Used..... | | | | | | 6,076,736 | Kilowatt Hours | | |
| Total Refrigeration..... | | | | | | 7,040 | Tons | | |

DEPARTMENT OF PUBLIC WORKS

STATISTICS ON CAPITAL EXPENDITURES PROVINCIAL GOVERNMENT POWER PLANTS

For Year Ending March 31, 1951

(Vernon Pearson, Mechanical Superintendent)

| | Furnace Alterations | Installation of Gas Burners, Accessories, Oil Storage, Tanks, Pumps, Piping, etc. | New Generating Unit | Installation of New Water Main | New Boilers, Machinery and Equipment | Completion of New Power Plants | Total |
|---|---------------------|--|---------------------------|--------------------------------------|--|--------------------------------------|---------------------|
| Parliament Buildings and Administration Buildings, Edmonton | \$ 15,171.12 | ..... | ..... | ..... | \$45,593.61 | ..... | \$ 60,764.73 |
| Provincial Mental Hospital, Ponoka..... | 13,469.09 | ..... | ..... | ..... | 42,520.27 | ..... | 55,989.36 |
| Provincial Gaol, Fort Saskatchewan..... | 7,134.95 | ..... | ..... | ..... | ..... | ..... | 7,134.95 |
| Provincial Mental Institute, Oliver..... | 5,180.35 | ..... | ..... | ..... | 6,738.03 | ..... | 16,858.02 |
| Central Alberta Sanatorium, Keith..... | ..... | ..... | ..... | ..... | ..... | ..... | 965.05 |
| Provincial Training School, Red Deer..... | ..... | ..... | ..... | ..... | ..... | ..... | 53,637.97 |
| Total..... | \$40,955.51 | | \$965.05 | \$4,939.64 | \$94,831.91 | \$53,637.97 | \$195,350.08 |

THE BOILERS ACT

There were no fatalities or serious injuries to any person caused by the failure of any pressure vessel, but several persons were injured from other causes.

Phillip Meyer's hands and face were scalded when the cover on the charging neck of a steam jacketted cooker at Dr. Ballard's Animal Food Products Plant at Calgary opened. The cover was not properly secured, and Meyer slipped, falling into the discharging hot fat.

Maurice Allot received burns to the hands and face when flame flashed back during an attempt to light the burners under the high pressure boiler at the Wainwright Municipal Hospital. The automatic cut-off of the pilot light had burned out, and, when the strong wind extinguished the main burners, Allot did not allow sufficient time to purge the setting of the gas flowing from the pilot burner before attempting to light the main burners.

Albert Grandahl, Merrill Steele and Clarence Rutledge sustained serious burns about the hands and face at the Lacombe Home, Midnapore, when, during the change over to a new gas pressure reducing and metering station, insufficient time was allowed for purging the setting of gas, and an explosion occurred while attempting to light the pilot burner.

Edward Jens sustained burns to the hands and face at the Crystal Dairy, Medicine Hat, when a slight explosion occurred in the firebox of the boiler, following the renewal of the piping between the gas meter and the boiler. This accident was a result of the boiler setting not being properly purged prior to lighting the pilot burner.

A gas explosion occurred during the process of lighting the burners under Boiler (A) 7298 located in the City of Edmonton Power Plant. The operator considered the gas pressure at the burners was too low and instructed the water tender to manually open the regulating valve. This action resulted in too much gas entering the furnace through the burners for the amount of air admitted by the automatic controls and the explosive mixture was ignited by the lighted burners. The major damage was to the setting, which had to be completely dismantled in order that the casing plates and supporting beams could be straightened. Fortunately, no person was injured in this accident.

Another gas explosion which occurred in the setting of Boiler (A) 21305 located in the Power Plant of Swift Canadian Company, North Edmonton, did not injure any person. The operator incorrectly manipulated the controls while changing over from manual to automatic control. He realized his error and closed the main gas valve at the burners, but he was too late to avert an explosion. The setting and breeching were extensively damaged, and all plates in the breeching between the boiler and the smoke stack, as well as the casing plates, had to be removed for straightening. The brickwork was also extensively damaged.

A number of boilers were damaged due to low water and undue accumulation of scale on the heating surfaces, while others were damaged by frost and fire. The majority of the damaged boilers were satisfactorily repaired and returned to service.

The Briquette Plant at Nordegg, owned by Brazeau Collieries Limited was completely destroyed by fire, but is now being rebuilt.

Two of the steam generators at the City of Edmonton Power Plant were converted from coal burning to gas firing and, with the installation of water cooled walls and arches, a greatly increased output and efficiency was obtained, as well as a reduction in the cost of operation.

A number of new steam generators were placed in operation during the fiscal year, including the following:

Canadian Sugar Factories Limited, Taber, two generators, 87,500 pounds per hour each.

Imperial Oil Limited, Devon, Five generators, 10,000 pounds per hour each.

Shell Oil Company of Canada Limited, five generators, 11,000 pounds per hour each.

Government of Alberta Power Plants:

Power Plant Number One, Edmonton, one generator, 30,000 pounds per hour.

Power Plant Number Eight, Red Deer, two generators, 5,000 pounds per hour each.

Power Plant Number Three, Ponoka, one generator, 30,000 pounds per hour.

Power Plant Number Six, Oliver, one generator, 25,000 pounds per hour.

University of Alberta, Edmonton, two generators, 50,000 pounds per hour each.

In the process of installation are two 60,000 pounds per hour steam generators at the British American Oil Company's East Edmonton Refinery, and three 35,000 pounds per hour steam generators at the McColl-Frontenac Oil Company's East Edmonton Refinery.

The North West Brewing Company, Edmonton, is installing three 12,000 pounds per hour Horizontal Return Tubular Boilers to replace two smaller boilers.

Additional boilers were installed in the steam plants of the Husky Oil Refining Company and the Excelsior Oil Refining Company at Lloydminster to provide for the increased steam demand, occasioned by additions to the refineries.

A number of new industrial plants, having various types of pressure vessels, commenced operations during the year, including the following:

Imperial Oil Limited Light Ends Unit at Devon.

Imperial Oil Limited Propane Bulk Plant at Nisku.

Canadian Sugar Factories Limited sugar factory at Taber.

Sturdy Propane Limited Propane Bulk Dispensing Plant at Edmonton.

A new Desalting Unit was installed and placed into operation at the Imperial Oil Limited East Edmonton Refinery.

The Edmonton Pumping Station of Interprovincial Pipe Line Company Limited was completed and placed into operation.

The construction of the Gas Treating and Processing Plant of the Shell Oil Company of Canada Limited at Jumping Pound, was practically completed by the end of March. The Company expected to commence operating this plant early in May, 1951.

Rapid progress is being made with the construction of the refineries for the British American Oil Company and McColl-Frontenac Oil Company Limited, East Edmonton, and these refineries are expected to commence operations some time during this summer.

Black, Sivalls and Bryson, of Oklahoma City, Oklahoma, U.S.A., have erected a large shop in South Edmonton for the fabrication of pressure vessels for use in the oil fields, and the resident manager has intimated that their quantity production will soon require the full time service of at least one inspector.

The Oil Companies, Producing Equipment Suppliers, and Petroleum Consulting Engineers, were consulted regarding Regulations for Oil Field Batteries. A complete report was forwarded to us for transmission to Dr. G. W. Govier of The Petroleum and Natural Gas Conservation Board.

The majority of the recommendations contained in the report, were approved by The Petroleum and Natural Gas Conservation Board, and were incorporated in its Drilling and Producting Regulations.

There were seven prosecutions for infringement of The Boilers Act and a conviction was obtained in each case.

Assistant Inspectors A. J. R. Rees and A. J. Munro were successful in passing their examinations for First Class Engineer's Certificates, and were promoted to Boiler Inspectors.

Inspectors of Unfired Pressure Vessels Rodney Edgecombe and Charles Javens were appointed to the Staff, Inspector Edgecombe resigning after approximately two and one-half months of service.

Inspector David Koop resigned from the staff at the end of August to take charge of a steam plant in Calgary.

Inspector Adam Seymour Grey was retired at the end of March after efficiently taking care of the East Lethbridge and Medicine Hat Inspectorate since 1937. He was a very capable inspector who was highly regarded by steam plant owners and operators and we were very loath to dispense with his services.

Mr. Scott, Assistant Chief Inspector of Boilers, attended the Second Meeting of the Canadian Standards Association Committee B51 on Boilers and Pressure Vessels, which was held in the Royal York Hotel, Toronto, on May 18th and 19th, 1950. This meeting considered the Third Draft of the C.S.A. Code B51, Canadian Regulations for the Construction and Inspection of Boilers and Pressure Vessels (Third Edition). The Chief Inspectors of the various Provinces discussed each section carefully and harmoniously, and with an earnest desire to achieve uniformity on a number of controversial subjects.

The Third Edition of C.S.A. Code B51 is now ready for printing and should be available to the public in the near future.

C.S.A. Code B51 was drafted to supplement the various Codes formulated by the Boiler Code Committee of the American Society of Mechanical Engineers which have been accepted by all the Canadian Provinces.

As Canadian representative on the Executive Committee of the National Board of Boiler and Pressure Vessels Inspectors, Mr. Scott attended two meetings in New York and one in Chicago.

In addition, he attended two meetings of the A.S.M.E. Boiler Code Committee as a member of the Conference Committee.

All expenses incurred in attending the meetings in the United States were defrayed by the National Board.

The Liquefied Petroleum Gas Industry is rapidly expanding in the Province, and several propane bulk dispensing plants are being constructed in different locations in the Province. We have been approached on numerous occasions regarding the desirability of formulating regulations governing the installation of Liquefied Petroleum Gas Systems, but, for the present, we do not consider this is necessary. The various propane distributors have been instructed to install the systems in accordance with the National Board of Fire Underwriters' Pamphlet Number 58, which contains adequate restrictive requirements to ensure safety to persons using the systems.

Designs covering Liquified Petroleum Gas Containers are surveyed by our staff, and all containers are inspected prior to being filled with propane. This procedure has been in effect since 1947, therefore some provision must be made in the near future for a reinspection of the propane containers installed in 1947.

The tremendous growth in industrial activity in the Province, due principally to the steadily increasing oil development and production, has resulted in a corresponding increase in the number of designs, detailing pressure vessels, fittings and piping layouts, submitted for our survey and registration. In order to cope with the accumulating designs, Inspector D. L. Anderson was instructed to assist in the survey work, and, with his assistance, we have just been able to keep pace with the number of designs received at this office for survey and registration.

There follows a summary of work accomplished during the year, together with a comparative summary of work and revenue for the year 1949-50 and 1950-51.

SUMMARY OF WORK AND REVENUE, 1950-51 AND 1949-50

| Type of Boiler or Pressure Vessel Inspected: | 1950-51 | 1949-50 |
|--|---------|---------|
| Liquified Petroleum Gas Containers..... | 1032 | 833 |
| Horizontal Return Tubular..... | 213 | 271 |
| Horizontal Furnace..... | 48 | 51 |
| Water Tube..... | 235 | 252 |
| Locomotive Type..... | 651 | 755 |
| Vertical | 156 | 251 |
| Receivers | 2230 | 2306 |
| Heat Exchangers..... | 268 | 221 |
| Oil Stills..... | 3 | 6 |
| Steam Processors..... | 93 | 95 |
| Steel Heating..... | 745 | 669 |
| Cast Iron..... | 889 | 514 |
| Miscellaneous | 738 | 714 |
| Total..... | 6796 | 6938 |

Condition of Pressure Vessels Inspected:

| | | |
|-----------------|------|------|
| Good | 4944 | 4885 |
| Fair | 1724 | 1924 |
| Poor | 79 | 86 |
| Condemned | 15 | 17 |
| Scrapped | 34 | 26 |
| Total..... | 6796 | 6938 |

Certificates Issued.....

Number of Inspection Visits.....

Number of Special Inspections Under Section 14 of the

Alberta Boilers Act.....

Factory Act Inspections.....

Number and Class of Engineer's Certificates Issued:

| | | |
|----------------------------|------|------|
| First Class..... | 5 | 8 |
| Second Class, 750 H.P..... | 4 | 3 |
| Second Class, 500 H.P..... | 26 | 20 |
| Third Class..... | 58 | 56 |
| Special | 5 | 8 |
| Traction Final..... | 3 | 4 |
| Fireman's Final..... | 35 | 63 |
| Provisional | 472 | 409 |
| Temporary | 760 | 781 |
| Welder's Certificates..... | 66 | 34 |
| Total..... | 1434 | 1386 |

Number of Designs Surveyed.....

779

413

Revenue:

| | | |
|---|-------------|-------------|
| Surveying and Registering Designs | \$ 6,160.78 | \$ 3,533.00 |
| Pressure Vessel Registrations..... | 52,490.00 | 50,542.00 |
| Engineer's Registrations..... | 2,594.00 | 2,465.00 |
| Engineer's Certificates..... | 7,522.50 | 6,791.00 |
| Special Inspection Fees | 1,653.25 | 1,678.90 |
| Total..... | \$70,420.53 | \$65,009.90 |

THE FACTORIES ACT

At the end of November, 1950, Mr. W. F. Howard, Chief Factory Inspector, retired on pension. This position was taken over by Mr. W. E. Sutton, who was promoted from the position of Inspector.

Industry and new business has continued to expand in the Province of Alberta.

Two new oil refineries are nearing completion near the City of Edmonton, which will give a total of three refineries on production. The new Sugar Refinery at Taber went into production during 1950.

Packing plants in both the cities of Edmonton and Calgary have expanded. Several large office buildings have been built or are nearing completion in the larger cities. Department stores in Calgary and Edmonton have enlarged their premises, while several new wholesale houses have erected new buildings. This large building expansion has made itself felt in peak periods of employment in all the building and allied trades.

The number of accidents in the Oil Field industry has shown a decrease, resulting in the lowering of compensation rates in this industry, although the activity has increased in all fields.

There were five fatal accidents investigated during the year with details as follows:

1. Albert Kozlinski—Employed by T. T. Eason Drilling Co., caught in drilling line or cable of main drawworks of drilling rig in the Bruderheim district. Died almost instantly.
2. George Bonvouloir—Employed by International Pipe Lines, at pumping station, Clover Bar District, fell 30 feet from metal stairway while gauging storage tank.
3. Hugh Edmondson—Employed by Royalite Oil Co., died from burns at Redwater oil tank.
4. P. W. Young—Employed by Pioneer Grain Company at grain elevator, Hemaruka. Struck on head by flywheel of engine.
5. Jacob Bauer—Employed by H. H. Cooper Ltd., Edmonton. Died from injuries after being struck on head by bi-parting elevator door.

A total of three hundred and sixty inspections were made of Oil Drilling Rigs and Tank Farms, etc. These inspections do not adequately cover safety as far as drilling rigs are concerned, especially in that section of the province north of Red Deer, where the drilling activity is the greatest.

The following Table No. 1 shows the number of inspections, employees and recommendations made during the 1950-51 period:

SUMMARY OF INSPECTIONS AND EMPLOYEES

| | No. of Inspections Made | No. of Male Employees | No. of Female Employees | Total No. of Employees | No. of Safety Recommendations |
|--------------------|-------------------------|-----------------------|-------------------------|------------------------|-------------------------------|
| Factories | 2,491 | 29,297 | 6,354 | 35,651 | 2,172 |
| Shops | 1,024 | 10,861 | 7,162 | 18,023 | 87 |
| Office Bldgs. | 42 | 419 | 276 | 695 | 2 |
| Totals..... | 8,557 | 40,577 | 13,792 | 54,369 | 2,261 |

PASSENGER AND FREIGHT ELEVATORS

Forty-five new elevators and one escalator were installed during the past year. The distance of travel was increased on four other modern machines, to serve additions to the buildings. Every new installation and alteration was thoroughly checked and tested before being put into regular service. Of the 46 new installations, 27 were made north of Red Deer, with 19 in the southern part of the Province. These new elevator installations are as follows:

- 1 Escalator.
- 13 Passenger Elevators.
- 26 Freight Elevators.
- 5 Power Dumbwaiters.
- 1 Employees' Belt-lift.

This represents the largest number of new installations made in the Province in one year. A total of 801 elevator inspection certificates were issued, bringing in a net income of \$3,042.00.

Table No. 2 shows the number of inspections and the number of recommendations made in each class of elevator inspected:

TABLE No. 2
SUMMARY OF ELEVATOR INSPECTIONS

| Class of Elevators Inspected: | No. Insp. | No. Rec. |
|---------------------------------|-----------|----------|
| Escalator | 18 | 23 |
| Passenger | 216 | 289 |
| Power Freight | 446 | 818 |
| Manually Operated Freight | 44 | 74 |
| Employee's Belt-lift | 32 | 42 |
| Power Dumbwaiter | 38 | 33 |
| Not Being Operated | 24 | 2 |
| Condemned | 6 | 4 |
| Dismantled or Scrapped | 8 | — |
| Reinspected: Passenger | 13 | 13 |
| Manual | 3 | 2 |
| Freight | 28 | 52 |
| Humphrey | — | — |
| Dumbwaiter | 1 | 2 |
| Total..... | 877 | 1354 |

Four elevator accidents were investigated during the past year showing a decrease from the previous year. However, one of these accidents as already mentioned in this report, proved fatal to one, Mr. Jacob Bauer. All four accidents occurred on equipment that complied with the present Code. Two of these accidents could possibly have been avoided with additional equipment on the car. In both cases recommendations were made for this additional equipment. Actually, all four accidents would come under the classification of "unsafe acts."

Co-operation has continued between the Workmen's Compensation Board and this Department, with the interchange of inspection and accident reports, which have proved beneficial to both services.

There were no prosecutions made by the Department for infractions of the Factories Act.

THE WELDING ACT

RECEIPTS:

From April 1st, 1950, to April 1st, 1951, 1,302 Welding Certificates were issued. Journeyman, 125; Provisional Journeyman, 4; Special, 654; Provisional Special, 4; Temporary Special, 23; Apprentice Certificates, 492; Examinations conducted, 1,166; complete failures, 154.

| | |
|--|-------------|
| Revenue from Welder's Examinations | \$ 8,753.00 |
| Revenue from Apprentice Certificates | 984.00 |
| Revenue from Welder's Registrations | 7,402.00 |
| Total Revenue | \$17,139.00 |

This shows an increase of \$2,985.00 over last year.

INSPECTIONS:

Total miles travelled was 41,375, being almost equally divided among all examiners. Three thousand five hundred (3,500) Shop Inspections were made.

ACCIDENTS:

Only four (4) accidents were reported during the past year. The fatal accident to Mr. Paul J. M. J. Theroux at Redwater was not proved to be directly connected with Welding. Two slight accidents were reported from body shops, and one at Sentinel, where a Welder fell from a scaffold.

PROSECUTIONS:

Thirty-two (32) persons were prosecuted for infractions of The Welding Act, twenty-nine (29) under Section (9) and three (3) under Section (10).

SUMMARY:

The past year has been reasonably successful from the standpoint of advancement of the Welding Trade, and the Administration of "The Welding Act." It has again been noted that the Technical School at Calgary has made a real contribution to the advancement of welding.

THE ELECTRICAL PROTECTION ACT AND REGULATIONS

The expansion of the Electrical Industry in Alberta has continued at a rapid pace during the year, with major increases in Generating, Transmission, Distribution and Utilization Facilities taking place.

Increases in generating capacity were made in Hydro, Steam and Diesel Plants. The largest and most important being the Spray Lake Development, by the Calgary Power Limited. This development will eventually add about 100,000 KVA to the capacity available, and was expected to be in partial operation by December, 1950. A slide occurred in the main flume about the middle of December, and this unfortunate accident prevented the operation of this source of supply during the winter. It was therefore necessary to restrict the supply of power to some of the larger consumers, and considerable difficulty was experienced in supplying the December peak loads. As a result of this accident and the low water supply during the winter of 1949, 1950 hydro production was down about 10% for the year.

In spite of these difficulties, the over-all consumption of electricity in the Province increased about 10% during the year, the additional output being provided from Steam Plants interconnected with the Hydro System.

Further additions were made to Transmission and Distribution Facilities, the largest being the new 132 KV Line from Barrier to Bellevue, extending approximately 120 miles through mountainous country. This line went into operation on February 25th, 1951, and assures the Crowsnest area of an adequate power supply.

Other major additions were a 69 KV Line from Hanna to Castor, a 66 KV Line from Edmonton to Redwater, a 34KV Line from Derwent to Two Hills, and a 38 KV Line from Exshaw to Kananaskis. This together with several additions to existing 22 KV and 13 KV Lines involved a great deal of construction work during the year. Plans covering the construction of these lines were submitted to this Branch for approval, and inspection of the construction is taking place as rapidly as possible. An attached summary outlines the number of Line Construction Prints received, and checked during the year, together with breakdown, showing the number inspected and the number on which inspections are still to be made.

The capacity of municipally owned distribution lines in the various cities was increased, and lines built to supply new Industries and new Residential areas. Distribution facilities were also increased and extended in the many Cities, Towns and Villages served by the privately owned Utility Companies. The inspection of such lines by this Branch has resulted in a marked improvement in the type of construction. The cities are now beginning to draw up and submit prints on the construction proposed to insure that the strength, clearances and working spaces, comply with the minimum requirements. Steps are also being taken to eliminate many of the hazardous conditions on existing lines which had accumulated over a period of years.

Approximately 3,000 miles of rural distribution lines were built mainly by the larger privately owned Utility Companies, and these lines serve about 3,500 new rural customers. The development in this respect

was almost identical to the previous year, with the areas served extending over all the main settled part of the Province.

The oil development resulted in a large increase in the demand for power, particularly in the Edmonton area. The demand at the Imperial Oil Company Refinery at Edmonton was increased from 1500 to 3000 KVA, and the new refineries being built for the B.A. Oil Company and McColl Frontenac Oil Company will eventually require 1500 and 1000 KVA respectively.

About 500 Oil Well Pumping Units, and Gathering Line Pumps were installed and added approximately 6000 H.P. to the connected electrical load. Similar increases in this type of load can be anticipated for the coming year.

The Inspection and Approval of Lighting Assemblies for Oil Well Drilling Rigs, the Inspection and Approval of Oil Well Pumping Equipment and Installations, together with Refinery and Absorption Plants has resulted in a great deal of extra work for this Branch. Meetings were held with the Petroleum and Natural Gas Conservation Board, and the Western Canada Petroleum Association, and the Workmen's Compensation Board, with a view to establishing uniform requirements for the various types of Oil Field installations. It is anticipated that specific requirements for Oil Field installations will be drawn up and printed in pamphlet form and thereby set up a uniform requirement.

Several new Industries are in the process of being established and will make further large demands on the power supply in the immediate future. Some of these are the Canadian Industries Limited Explosive Plant at Calgary, the Celanese Corporation Plant at Edmonton and the Sydney Roofing and Paper Company Plant at Lloydminster.

Regulations governing the Electrical Permits and Inspection Fees were adopted by Order-in-Council 662/50, and became effective on July 1st, 1950. These Regulations were discussed at public meetings, held early in 1950, and their enforcement has met with general approval both from the Electrical Industry and the Public. They have made it possible for this Branch to obtain an accurate record of Interior Wiring being done and have resulted in a marked improvement in Interior Wiring installations. The Inspection Branch can now deal directly with the person or firm responsible, when corrections are required, rather than through the customer as was the practice formerly. They have provided an easy method of control over persons and firms who had not been too particular in making the installations in accordance with the minimum Safety Rules.

The City of Medicine Hat and the City of Drumheller, who formerly operated local Inspection Departments made application for this Branch to take over the Electrical Inspection work under the new Permit System. As a result Branch Offices were opened and District Inspectors posted to these cities early in September. With Inspectors located in these cities, it is possible to cover the adjacent areas and has resulted in a considerable saving in over-all travelling expense. The additional work involved and the staff required was not anticipated in the Estimates for the year. It has therefore resulted in a shortage of staff for other work, and made it impossible to keep inspections up to date.

The requirement that most of the applicants for permits must be licensed electricians, has prevented many unqualified persons from attempt-

ing to make electrical installations. It has also encouraged many who formerly did work without a license to apply for examination under the Tradesmen's Qualification Act.

These new Regulations also make provision for the submission of plans for large installations before permits are issued. Numerous plans have been submitted and many of the changes required have been pointed out before the installation was commenced.

The Permit Fee System has provided a source of revenue which covers a large proportion of the expenses involved in carrying on the activities of this Branch. A summary at the end of this report gives an outline of the permits issued, and monies received, and this should be considered as a six-month basis, as the Regulations contained did not become fully effective until October 1st, 1950.

The co-operation with the Canadian Standards Association has continued, and this has been found to be of great assistance in developing uniform rules for installation and standard specifications for equipment. A new edition of the Canadian Electrical Code is in the formative stage, and the opinions of the various Inspection Departments in Canada with respect to changes and additions are now being assembled for final review.

The Requirements of Canadian Standards Association Approval of Equipment, is being enforced and assures a high standard of safety and reliability in the equipment so covered. Meetings of the Canadian Standards Association Approvals Council are held each spring and fall usually in Toronto or Montreal. These meetings are attended by representatives of the various Provincial Departments enforcing Electrical Safety Regulations, together with representatives from the Canadian Standards Association, Approvals Division, Insurance Companies, and the Canadian Electrical Manufacturers' Association.

These meetings provide an opportunity to review Specifications after field experience with the equipment concerned, and also provide information regarding new materials and equipment becoming available.

A more complete enforcement of approval requirements could be made if the Dominion Customs Department would provide the Provincial Inspection Department with the lists of Imported Electrical Equipment. The Canadian Standards Association have tried for several years to obtain their co-operation in this respect, but to date have been unsuccessful. At a meeting of the Approvals Council last year it was recommended that this question be brought up for discussion at the Dominion Provincial Conference. Considerable correspondence has taken place between the Canadian Standards Association, Canadian Electrical Manufacturers' Association, and the Ministers administering Electrical Regulations in the various Provinces on this subject, and it is hoped the Customs Department will eventually be persuaded to co-operate.

Factory inspections for the Canadian Standards Association are being continued, and cover equipment manufactured in this Province which carries Canadian Standards Association approval. The cost of such inspection work is charged directly to the Approvals Division of the Canadian Standards Association. This practice is in line with the policy followed in the other Western Provinces, and while it involves additional work by our staff, it appears to be the only satisfactory method of handling the limited number of inspections of this kind.

As a result of complaints made regarding hazardous installations of high-voltage electric discharge lighting systems in the City of Edmonton we were asked to take over the inspection and approval of such installations by the City of Edmonton, Light and Power Department. These installations now come within the scope of our Permit Regulations.

Several items of special equipment are manufactured or imported into the Provinces each year, for which the usual Canadian Standards Association Approval is not available. In such cases special inspection and test is made by this Department at a nominal charge. If changes are required these must be completed before approval is given for the equipment to be sold or used. This has involved considerable extra work in recent months, due to the special types of equipment being manufactured and imported for use in the Oil Industry.

The Annual Meeting of the Provincial Canadian Electrical Code Committee was held early in February, with representation from various sections of the Industry present, together with Inspectors from the Provincial and Municipal Inspection Departments. Numerous questions regarding the interpretation of rules and changes to existing rules were discussed. Drafts of sections of the proposed revisions to the Canadian Electrical Code were also reviewed, and comments made have been forwarded to the Central Committee for consideration.

These Annual Meetings have become quite popular with the trade generally, as it gives an opportunity to obtain the different viewpoints of various requirements. It has been noted that the number of persons attending such meetings has increased each year, even though the expense of attending is borne by the Organizations represented.

The Electrical Inspection Branch instituted a Quarterly Bulletin in July, 1950. This Bulletin which is distributed free of charge covers items of interest to the trade and gives information on the methods to be followed in making unusual installations or using new equipment and materials. This Bulletin was very favorably received and the Mailing List has reached about 1,500, with a continual request being received for additional names to be added to our list. It has been found an excellent medium for passing along items of general interest to the trade. The fourth issue of this Bulletin is being printed at the present time.

Thirty-one accidents and fires, including seven fatal accidents, were investigated during the year. Two of the fatal accidents occurred to small children when they came into contact with conductors carrying 110 volts. In one case the child came into contact with exposed wires when a receptacle was being repaired by the owner of the premises who was the father of the child. The other case occurred when service wires to a house were cut while still energized and allowed to fall on the ground, in an adjacent yard, where the child was at play. These wires were cut by a Utility Company employee, and as a result of the investigation the Attorney General's Department laid a charge of Criminal Negligence against the employee concerned.

Four fatal accidents and a number of serious non-fatal accidents occurred to linemen, and other employees of the Utility Companies engaged in construction and repair work. In most cases these accidents could in the final analysis be attributed to failure of the employee to observe the Safety Rules. In some cases the employer was partially to blame

through not having made certain the workman was competent and familiar with these rules. A circular was sent to all the major Utility Companies, both Municipal and privately owned, early this year, pointing out the necessity of insuring that every employee working around or on energized conductors was competent and familiar with the Safety Rules, contained in the Electrical Protection Act Regulations.

Two accidents occurred in rural areas to farmers or their helpers when they climbed Utility Company poles, and thereby came in contact with high tension wires. Instructions were issued late in 1949 that no one but qualified men employed by the Utility Company were to do any work on poles carrying high tension wires. Every effort is being made to have these instructions publicized, particularly to interior wiremen, and Rural Electrification Associations.

Three new Inspectors were added, making a total of twelve, on the staff in 1950. The inclusion of Medicine Hat and Drumheller in the area covered made it impossible to keep up with the Rural Inspection work. Rural inspections present a difficult problem, in that, weather and road conditions, together with the distances involved, restrict the periods in which inspection work can be carried out. As will be noted from the following summary there are still a large number of rural installations which it has been impossible to check as yet.

The institution of the Permit System has been of great assistance in planning inspection trips and has also resulted in a greatly improved type of work being done. The number of corrections required on final inspections is diminishing rapidly, and in many cases approval can be given on the first check.

Inspections of existing wiring installations were continued and requests issued for the alterations required where hazardous conditions were found. A great improvement has been made in the existing wiring in hotels, schools, hospitals and other places of public assembly. It has been found that in most cases the owners of such buildings are anxious to have the corrections made when the obvious defects have been pointed out.

The general activities of the Inspection Branch have increased a great deal and the checking of Plans and Permits has involved extra office work. Much of this type of work has been done after regular hours, either at home or in the office, and the Staff are to be highly commended for their interest and willingness in this respect.

The following is a summary of the activities of the Inspection Branch giving details of the various items:

| | |
|---|-------------|
| Fatal Accidents Investigated | 7 |
| Other Accidents and Fires Investigated | 24 |
| Permits Issued July 1st 1950 to March 31st 1951 | 10127 |
| Permits Cancelled July 1st 1950 to March 31st 1951 | 67 |
| Permit Fees Received July 1st 1950 to March 31st 1951 | \$19,749.75 |
| Permits Received | 9939 |
| Inspections of Installations covered by Permit: | |
| Completed Satisfactorily | 2592 |
| Not Completed Satisfactorily | 1419 |
| Not Yet Checked | 5928 |
| Requisitions Issued covering Existing: | |
| Interior Wiring Installations | 8171 |
| Transmission and Distribution Installations | 128 |
| Estimated Number of Rural Installations made prior to July 1st, | |
| Not Inspected Yet | 2500 |
| Inspection and Re-inspection Reports Issued | 5497 |
| Inspection and Re-inspection Reports Received | 247 |

| | |
|---|-------|
| Transmission and Distribution Line Plans: | |
| Installations Inspected | 145 |
| Not Yet Checked | 232 |
| Carry over from previous year | 45 |
| Interior Wiring Plans Received and Approved | 400 |
| C.S.A. Factory Inspections | 123 |
| C.S.A. Approvals Reports checked | 445 |
| Interviews away from Office | 2108 |
| Number of days on Field Inspection | 1042 |
| Number of miles travelled by car | 90402 |

HIGHWAY TRAFFIC BOARD

(G. H. N. MONKMAN, CHAIRMAN — H. R. CLARK, SECRETARY)

A summary of licenses issued during the past fiscal year shows the following:

| | | | |
|----------------------|--------|-------------------------------|--------|
| Buses | 450 | Public Service | 8,870 |
| Liveries | 820 | Commercial Vehicle | 9,717 |
| School Vans | 1,299 | City and Urban | 6,016 |
| Drive Yourself | 185 | Government, Provincial, | |
| Farm Trucks | 4,4176 | Federal, Municipal | 3,090 |
| Grain Hauling | 249 | Miscellaneous | 4,574 |
| | | Total | 79,446 |

Comparing this total with that of last year, viz. 68,877, an increase is noted in the registration of vehicles (which are licensed by the Board) of 10,569 or approximately 13.5%. Farm trucks alone show an increase of 27%.

During the course of the year the Board met and discussed various matters affecting the transportation industry. A reciprocal agreement with respect to licensing was entered into with the Commissioner, North West Territories.

Various applications from bus operators were received and new franchises and extensions to existing franchises were dealt with as follows:

New Franchises

| | |
|--------------------------------|---------------------------|
| Innisfail-Acme | S. W. Evans |
| Carway-Macleod | Cooper Transport |
| Edmonton-Elk Island Park | Beverly Bus Lines |
| Grande Prairie-Hythe | Canadian Coachways Ltd. |
| Berryymoor-Edmonton | D. E. Laughlin |
| Wimborne-Olds | S. W. Evans |
| Calgary-C.I.L. Plant | Monden Transportation Co. |
| Calgary-Jumping Pound | Monden Transportation Co. |
| Wainwright-Army Camp | H. Frye |

Extensions

| | |
|---|-------------------------|
| St. Paul-Elk Point | Sunburst Motor Coaches |
| Hotchkiss-North West Territory Border | Canadian Coachways Ltd. |
| Wandering River-Lac La Biche | Northern Trailways Ltd. |
| Myrnam-Lloydminster | Highway Transports Ltd. |
| Mayerthorpe-Whitecourt | Canadian Coachways Ltd. |

Transfers Approved

| | |
|-----------------------------|-------------------------|
| Peace River-Hotchkiss | Canadian Coachways Ltd. |
| Edmonton-Refineries | G. C. McLeod |
| Boyle-Lac La Biche | Sunburst Motor Coaches |

Discontinued

| | |
|---|---------------------------|
| Waterways-McMurray | Northern Beaver Bus Lines |
| Grande Prairie-Valhalla | Canadian Coachways Ltd. |
| Carbon Service Station-Carbon Coal Mine | Carbon Coal Mine |
| Edmonton-Penn Mine | Carbon Bus Lines |
| | Crown Coal Co. |

The following certificates were in effect at March 30, 1951:

| | |
|---|-----------------------------------|
| Alberta Trailways | Calgary-Milo |
| Allen & Wilson Bus & Taxi Service | Ponoka-Mental Hospital |
| Beverly Bus Line | Edmonton-Beverly |
| Black Beauty Coal Co. | Edmonton-Elk Island |
| Blue Bird Coach Lines | Edmonton-Mine and Namao |
| Blue Goose Lines | Innisfail-Acme |
| Branch Lines Ltd. | Edmonton-Lac La Biche |
| Canadian Coachways Limited | Edson-Cadomin |
| | Edmonton-Thorsby |
| | Edmonton-Rimbey |
| | Edmonton-Athabasca |
| | Edmonton-Breton |
| | Edmonton-Lac La Biche |
| | Edmonton-Flatbush |
| | Edmonton-High Prairie |
| | Grande Prairie-High Prairie |
| | Grande Prairie-Dawson Creek |
| | Edmonton-Red Deer |
| | Edmonton-Devon |
| | Lacombe-Bluffton |
| | Edmonton-Smith |
| | Edmonton-Slave Lake |
| | High Prairie-Hines Creek |
| | Peace River-Manning |
| | Peace River-N.W.T. Border |
| | Grande Prairie-B.C. Border |
| Cardinal Coach Lines | Calgary-Stettler |
| | Red Deer-Consort |
| | Red Deer-Three Hills |
| Crown Coal Co., Ltd. | Edmonton-Starkey Mine |
| Diamond Bus Lines | Edmonton-Oil Refineries |
| Drayton Valley Bus Line | Edmonton-West Jasper Place |
| Edmonton Transit System | Entwistle-Drayton Valley |
| | City Limits-Imperial Oil Refinery |
| | City Limits-McColl Frontenac |
| | Refinery |
| Ferstay, John | Crowsnest District |
| Forest Lawn Bus Service | Calgary-Hubalta |
| Highway Coach Lines Ltd. | Edmonton-Myrnam |
| J. J. Hamilton Coal Co. | Edmonton-Lloydminster |
| Leader Bus Lines | Miners' Library, Federal Mine, |
| Lethbridge Northern Bus Lines | Lethbridge |
| Monden Transportation | Medicine Hat-Alta. Sask. Border |
| Northland Arrow Lines | Lethbridge-Turin |
| | Lethbridge-Picture Butte |
| O'Donnell, Michael W. | Calgary-Longview |
| Petrone, Guido | Calgary-Jumping Pound |
| Reith Bus Lines | Edmonton-Barhead |
| Riverdale Coal Co. Ltd. | Barrhead-Fort Assiniboine |
| Rhein & Boudreau | Edmonton-Westlock |
| Senft, Alfred | Edmonton-Barhead via Sion |
| Setia, H. | Athabasca-Baptiste Lake |
| Shaw, James | Hillcrest-Mohawk Mines |
| Sorensen Bus Lines | Stettler-Drumheller |
| Sunburst Motor Coaches Ltd. | Edmonton-Riverdale Mine |
| | Wandering River-Athabasca |
| | Claresholm-Airport Station |
| | Coleman District |
| | Edmonton-Berrymoor |
| | Rocky Mountain House-Nordegg |
| | Red Deer-Rocky Mountain House |
| | Red Deer-Nordegg |
| | Red Deer-Sylvan Lake |
| Sundre Bus Lines | Edmonton-Chauvin |
| United Mine Workers' Assn. | Edmonton-St. Paul |
| Valley Bus Lines | Edmonton-Sask. Border |
| | Edmonton-Buck Lake |
| | Edmonton-Cold Lake |
| | Edmonton-Alliance |
| | Edmonton-Alix |
| | Sundre-Olds |
| | Lethbridge-Galt Mine |
| | Drumheller-East Coulee |
| | Drumheller-Wayne |
| | Drumheller-Nacmine |
| | Drumheller-Midland |

DEPARTMENT OF PUBLIC WORKS

| | |
|---------------------------------|--|
| Van Wert, T. | Redcliff-Medicine Hat |
| Vauxhall Bus Lines | Vauxhall-Taber |
| Wesley, Paul | Lethbridge-Etzikom |
| Western Canadian Greyhound Ltd. | Macleod-Coutts Lethbridge-Cardston Lethbridge-Coutts Macleod-Crowsnest Macleod-Cardston Macleod-Walsh Calgary-Edmonton Calgary-Medicine Hat Edmonton-Lloydminster Calgary-Alsask Calgary-Macleod Calgary-Cardston Calgary-Banff Edmonton-Jasper Calgary-Waterton Lakes Macleod-Sask. Border Calgary-Coutts |
| Western Motor Coaches | Edmonton-Mayerthorpe Edmonton-Lac La Nonne |
| Wright Bus Line | Caroline-Red Deer Caroline-Rocky Mountain House Caroline-Calgary |
| Wainwright Bus Line | Wainwright-Army Camp |

The year's activities by various companies are shown as follows:

ACTUAL MILES TRAVELED

| | Dirt Roads | Surfaced Roads | Total Miles |
|----------|------------|----------------|-------------|
| 1950-51 | 329,125 | 6,940,765 | 7,269,890 |
| 1949-50 | 423,945 | 6,612,492 | 7,036,437 |
| Decrease | 94,820 | | |
| Increase | | 328,273 | 223,453 |

PASSENGER MILES TRAVELED

| | Dirt Roads | Surfaced Roads | Total Miles |
|----------|------------|----------------|-------------|
| 1950-51 | 9,199,547 | 256,796,433 | 265,995,980 |
| 1949-50 | 10,845,818 | 216,090,670 | 226,936,488 |
| Decrease | 1,646,271 | | |
| Increase | | 40,705,763 | 39,059,492 |

During the fiscal period, over 3,343,000 passengers were carried.

